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Natural History of Quadrupeds.

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Magazine.

OF

NATURAL HISTORY.

Comprehending

*The Whole Science of Animals,
Plants, and Minerals;*

*Divided into distinct Parts, the Characters
separately described, and Systematically
arranged.*

By *E. Sibly, M.D. F.R.H.S.*



L. P. sculp.

L O N D O N:

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and at the British Directory-Office, Ave-Maria-Lane, S^t Pauls.



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AN
UNIVERSAL SYSTEM
OF
NATURAL HISTORY,
INCLUDING THE
NATURAL HISTORY OF MAN;
THE ORANG-OUTANG;
AND
WHOLE TRIBE OF SIMIA;
ALL THE KNOWN
QUADRUPEDES, BIRDS, FISHES,
AND
AMPHIBIOUS ANIMALS;
INSECTS, POLYPEES, ZOOPHYTES, AND ANIMALCULÆ;
TREES, SHRUBS, PLANTS, AND FLOWERS;
FOSSILS, MINERALS, STONES, AND PETREFACTIONS.

FORMING A MAGNIFICENT VIEW OF
THE THREE KINGDOMS OF NATURE,
Divided into DISTINCT PARTS, the Characters SEPARATELY
DESCRIBED, and SYSTEMATICALLY ARRANGED.

VOLUME THE FIRST.

LONDON:
PRINTED FOR THE PROPRIETOR, AND SOLD BY CHAMPANTE
AND WHITROW, JEWRY-STREET, ALDGATE; AND AT THE
BRITISH DIRECTORY OFFICE, AVE-MARIA LANE, ST. PAUL'S.

UNIVERSAL SYSTEM
OF
NATURAL HISTORY.

NATURAL HISTORY OF MAN.

THE ORIGIN OF MANKIND.

THE ORIGIN OF CIVILIZATION.

THE HISTORY OF THE HUMAN RACE.

THE HISTORY OF THE HUMAN MIND.

THE HISTORY OF THE HUMAN BODY.

THE HISTORY OF THE HUMAN SOUL.

THE HISTORY OF THE HUMAN WILL.

THE HISTORY OF THE HUMAN EMOTION.

THE HISTORY OF THE HUMAN ACTION.

THE HISTORY OF THE HUMAN PASSION.

THE HISTORY OF THE HUMAN KNOWLEDGE.

THE HISTORY OF THE HUMAN ART.

THE HISTORY OF THE HUMAN SCIENCE.

THE HISTORY OF THE HUMAN PHILOSOPHY.

THE HISTORY OF THE HUMAN RELIGION.

THE HISTORY OF THE HUMAN MORALS.

THE HISTORY OF THE HUMAN VICES.

INTRODUCTION.

FROM the study and contemplation of NATURAL HISTORY, the refined and vivid pleasures of the imagination are almost entirely derived; and the elegant Arts owe their choicest beauties to a taste for the cultivation of this delightful part of polite literature. Painting and Sculpture are express imitations of visible objects; and where would be the charms of Poetry, if divested of the imagery and embellishments which she borrows from Nature? Painters, Statuaries, and Poets, therefore, are always ambitious to acknowledge themselves the pupils of Nature; and, as their skill increases, they grow more and more delighted with every view of the animal and vegetable world, and become susceptible of original impressions, from almost every surrounding object.

Under the sensibilities of mind which this pleasing study inculcates, the patient ox is viewed with generous complacency; the guileless sheep with pity; and the sportive lamb raises emotions of tenderness and love. We rejoice with the horse in his liberty and exemption from toil, while he ranges at large through enamelled pastures; and the frolics of the colt would afford unabated delight, did we not recollect the bondage he is shortly to undergo. We are charmed with the song of birds, soothed with the buzz of insects, and pleased with the sportive motions of fishes, because these are expressions of the enjoyments we love; and therefore we exult in the felicity of the whole animated creation. Thus an equal and extensive benevolence is called forth into exertion; and having felt

a common interest in the gratifications of inferior beings; we shall be no longer indifferent to their sufferings, or become wantonly instrumental in producing them.

The generation of the animal kingdom holds the first place among all things that raise our admiration, when we consider the works of the Creator; and chiefly that appointment by which he has regulated the conception of the foetus, and its exclusion, that it should be adapted to the disposition and way of living of each animal, is most wonderful, and highly deserving our attention. No species of animals seem exempt from the stings of love; which is infused into them, to the end that the Creator's mandate, "*encrease and multiply,*" may be fully executed. Hence foxes and wolves, struck with these stings, every where howl in the woods; crowds of dogs follow the female; bulls shew a terrible countenance, and very different from that of oxen. Birds look more beautiful than ordinary, and warble all day long through lasciviousness and love. Hence small birds labour to outsing one another, and cocks to outcrow. Peacocks spread forth again their gay and glorious train. Fishes gather together, and procreate in the water; and grasshoppers chirp, and pipe, as it were, amongst the herbs. The ants gather again into colonies, and repair to their citadels; the roarings of the lion are melted into love; and he forsakes his prey, under the universal impulse that leads to the preservation of the species.

The abundant care and protection which Providence holds forth to all his creatures, and the foresight and sagacity with which he has endued them for their preservation,

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servation, is a matter that equally engages our admiration and surprise. Monkeys, elephants, and rhinoceroses, feed upon vegetables that grow in hot countries, and therefore therein they have their allotted bounds. The rein-deer is fixed in the coldest part of Lapland, because their chief food is the liver-wort, which grows no where so abundantly as there. The camel frequents the sandy and burning deserts, in order to feed on the barren camel's-hay. How wisely has the Creator contrived for him! he is confined to the deserts, where oftentimes no water is to be found for many days. All other animals would perish with thirst, while the camel feels no inconvenience, being furnished with cells in his belly, where he reserves water fresh and perfectly good, for a long time together. The pelican likewise lives in desert and dry places, and is obliged to build her nest far from the sea, in order to procure a greater share of heat to her eggs. She is therefore forced to bring water from afar, to support herself and young; for which reason Providence has furnished her with a very large bag under her throat, which she fills with a quantity of water, sufficient for many days; and this she pours into the nest, to refresh her young, and teach them to swim. The wild beasts, lions, and tygers, come to this nest to quench their thirst, but do no hurt to the young!

Oxen delight in low grounds, because there the food most palatable to them grows. Sheep prefer naked hills, where they find a particular kind of grass called the *festuca*, which they love above all things. Goats climb up the precipices of mountains, that they may browse on the tender shrubs; and in order to fit them for it they

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they have feet formed for jumping. Horses resort by choice to woods, and feed upon leafy plants. Nay, so various is the appetite of animals, that there is scarcely any plant which is not chosen by some, and left untouched by others. The horse gives up the water-hemlock to the goat; the cow gives up the long-leaved water-hemlock to the sheep; the goat gives up the monks-hood to the horse, &c. for that which some animals grow fat upon, others abhor as poison. Hence no plant is absolutely poisonous, but only relatively. Thus the spurge that is noxious to man, is a most wholesome nourishment to the caterpillar. That animals may not destroy themselves for want of knowing this law, each of them is guarded by such a delicacy of taste and smell, that they can easily distinguish what is pernicious from what is wholesome.

It no less awakens our admiration, to observe how Providence actuates all animals for self-defence. Thus the hare, the fox, and the stag, often elude the vigilance of the hounds, by their windings and cunning. When sheep are attacked, they draw up together for mutual defence. Horses join heads together, and fight with their heels; oxen join tails, and fight with their horns. Swine get together in herds, and boldly oppose themselves to any attack; and they place their young in the middle, that they may remain safe during the battle. When horses sleep in woods, one by turn remains awake, and, like a centinel, keeps watch. When monkeys sleep upon trees, one of them keeps awake, to give the signal when the tyger creeps towards them; and if the guard by chance is caught asleep, the rest tear him to pieces.

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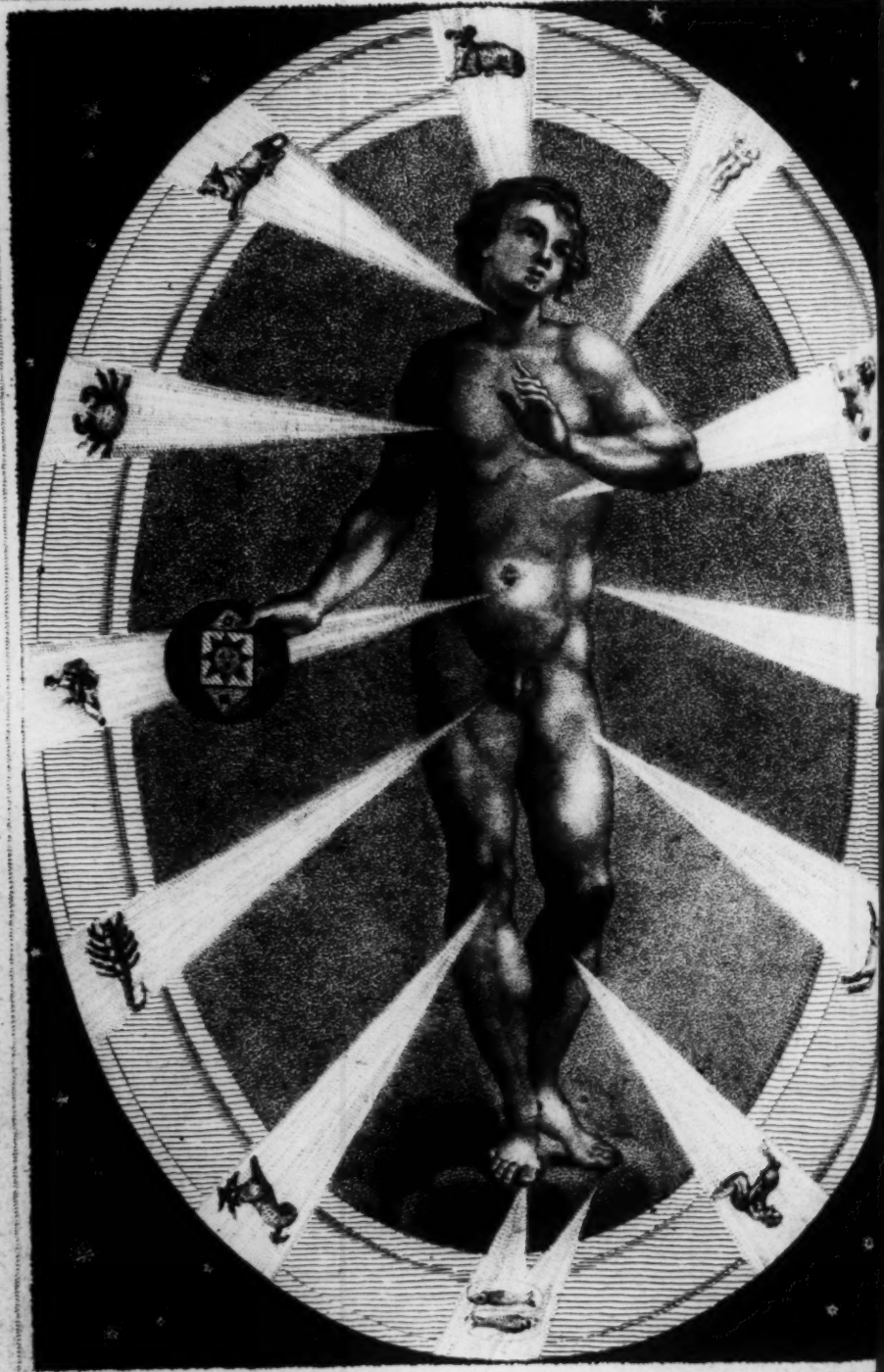
Our attention and astonishment are equally excited by the fossil and vegetable kingdoms. The fossil, no doubt, to a worldly mind, must be the most desirable, on account of its store of gold and precious stones; but to the heart of sensibility, which has a just and lively relish for peaceful and elegant retirement, what felicity on earth can equal the beauties of the vegetable world, animated by the universal chorus of the feathered race? The sages of old preferred the shade of a spreading oak, and the rich carpet which nature sends, to the most costly apartment. She decorates the flowret that springs beneath our feet, in all the perfections of external beauty. She has clothed the garden with a constant succession of various hues. Even the leaves of the trees undergo a pleasing vicissitude. The fresh verdure which they exhibit in the spring, the various shades which they assume in summer, the yellow and russet tinge of autumn, and the nakedness of winter, afford a constant pleasure to a lively imagination. From the snow-drop to the moss-rose, the flower-garden displays an infinite variety of shape and colour; nor did nature bring forth the tulip and the lily, the rose and the honey-suckle, to be neglected, or considered useless, by the haughty pretender to superior reason. On the contrary, all these treasures of nature, so artfully contrived, so wonderfully propagated, so providentially supported throughout her three kingdoms, have each their virtues and use, not one of which the most self-sufficient mortal would be able to supply. They are indeed made for MAN's use and benefit; whom it has pleased the Deity to place at the head of his creation; and has endued with an understanding,

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standing, and a Free Will, to act as a rational creature, and as vicegerent over all his works.

On this ground, Man is placed at the head of the following System of Natural History; for without him, endued with truth and virtue, with reason and an immortal soul, a solemn blank would appear in the creation, which no inferior creature could supply. Man, by the help of reason, tames the fiercest animals; pursues and catches the swiftest; and is able to reach even those which lie hid in the bottom of the sea. He has found the means of going down into the abyss of the earth, and almost searching its very bowels. It undoubtedly seems to have been the intention of Providence, that the lower order of animals should be subservient to the comfort, convenience, and sustenance, of Man. But his right of dominion extends no farther; and if this right be exercised with mildness, humanity, and justice, the subjects of his power will be no less benefited than himself. For various species of living creatures are annually multiplied by art, improved in their perceptive powers by human culture, and plentifully fed by human industry. The relation, therefore, is reciprocal between such animals and man; and he may supply his own wants by the use of their labour, the produce of their bodies, and even the sacrifice of their lives, whilst he co-operates with all-gracious Heaven in promoting happiness, the great end of our existence.





J.E. Dale delin^t

NATURAL HISTORY OF MAN.

UNIVERSAL
SYSTEM
OF
NATURAL HISTORY.

OF MAN.

MAN is placed at the head of the animal creation, and is a being who feels, reflects, thinks, contrives, and acts; who has power of changing his place upon earth at pleasure; who possesses the faculty of communicating his thoughts by speech; and who has dominion over all other creatures on the face of the globe. Animated and enlightened by a ray from the Divinity, he surpasses in dignity every material being.

He is a summary of the world's fabric, a small draught of the divine nature: he was made after all other creatures, not only as the most perfect, but as the superintendant and master, of all things; created *Quod dominetur in piscis maris, et in volucres cali, et in pecudes, et in universam terram, atque in omnia reptilia reptantia super terram*: "To rule over the fish in the sea, and over the fowl of the air, and over cattle, and over the earth, and over every creeping thing."

In the creation of man, God seemed to deliberate and take council with himself, how to epitomize and gather together all his works in so small a compass, to contract his book of creation into so small a volume. Hence he is called the microcosm, or little world,

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the recapitulation of all things, the ligament of angels and beasts, heavenly and earthly, spiritual and corporeal, the perfection of the whole work, the honour and miracle of nature. He created him naked, being a pure, neat, and delicate, creature, made up of thin, subtile, well-tempered, and seasoned, humours, innocent, and far more beautiful than the rest.

He was created upright, but little touching the earth, quite opposite to the vegetable plant, whose root is therein fixed; far different also from the beast, who is a mean between a plant and himself; and goeth downward, his two extremes tending to the bounds of the horizon: this upright gait belonging only unto the human species, as the holiest and most divine creature, his head tending to the heavens, on which he looks, and contemplates with grateful adoration the omnipotence of his Creator.

The natural history of man is an object of attention highly interesting, whether we consider him in the different periods of his life, or take a view of the varieties of his species, or examine the wonderful symmetry and construction of his parts in the womb, or the more mature completion and organization of his body in perfect manhood. *Nosce teipsum*, "Know thyself," is a precept worthy of the lawgiver of Athens: it has been called the first step to wisdom, and was formerly written in letters of gold in the temple of Diana. In the pursuit of this important information, MAN may be contemplated in the following respects:

PHYSIOLOGICALLY,---as a frail machine, chiefly composed of nerves and fibres interwoven with each other. His most perfect state is during youth; and he is endowed with faculties more numerous, and in higher perfection, than those of all other animals. Man, intended for exercising dominion over the whole animal creation, is sent by Nature into the world naked, forlorn, and bewailing his lot; he is then unable to use his hands or feet, and is incapable of

of acquiring any kind of knowledge without instruction; he can neither speak, nor walk, nor eat, nor perform any action whatever, by natural instinct:’

Pliny.---‘ We may judge what kind of life is allotted to us by Nature, since it is ordained, as an omen, that we should come weeping into the world:’ *Seneca*.---‘ It is humiliating to the pride of man, to consider the pitiable origin of this most arrogant of all the animals:’ *Pliny*.

DIETETICALLY.---*Cura valetudinem*. Bodily health and tranquillity of mind are more to be desired than all the riches, pomp, or glory, of the world. Health is to be preserved by moderation, it is destroyed by abstinence, injured by a variety of delicacies, weakened by unusual things, and strengthened by the use of proper and accustomed fare. Man, learned in the pernicious art of cookery, is fond of many dishes, rendered palatable by the injurious effects of fire, and by the baneful addition of wine. ‘ Hunger is satisfied with a small quantity of food, while luxury demands over-abundance. Imagination requires vast supplies; while nature is contented with a moderate quantity of ordinary food, and is burthened by a superfluity:’ *Seneca*.---According as thou livest, so shall thy life be enjoyed.

PATHOLOGICALLY.---*Memento mori!* The life of man resembles a bubble ready to burst; his fate is suspended by a hair, and is dependent on the uncertain lapse of time. ‘ The earth contains nothing more frail than man:’ *Homer*.---‘ Nothing is weaker than human life: to what dangers, and to how many diseases, is it not exposed? Hence the whole period of a man’s life is but a span: half of it is necessarily spent in a state resembling death; without including the years of infancy, wherein there is no judgment; or the period of old age, fertile in sufferings, during which the senses are blunted, the limbs become stiff, and the faculties of sight and hearing, the powers of

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walking, and the teeth, the instruments of nourishment, fail before the rest of the body:’ *Pliny*.---
 ‘ Thus a considerable part of death is suffered during life; and death possesses all that belonged to the times which are past. Finally, nature will speedily recal and destroy all the beings which thou seest, and all that thy imagination can suppose to exist hereafter; for death calls equally upon all, whether they be good or whether they be evil:’ *Seneca*, ii. 59.

NATURALLY.---*Inocui vivite, Numen adest!* Man, the prince of animated beings, who is a miracle of nature, and for whom all things on this earth were created, is a mimic animal, weeping, laughing, singing, speaking; tractable, judicious, inquisitive, and most wise; he is weak and naked, unprovided with natural weapons, exposed to all the injuries of fortune, needful of assistance from others, of an anxious mind, solicitous of protection, continually complaining, changeable in temper, obstinate in hope, and slow in the acquisition of wisdom. He despises the time which is past, abuses that which is present, and sets his affections on the uncertain future; thus continually neglecting winged time, which, though infinitely precious, can never be recalled; for thus the best and readiest time, in every age, flies on with miserable mortals; some it summons to attend their daily and burthensome labours; some it confines to luxurious inaction, pampered even to suffocation with superfluities; some it solicits in the ever restless paths of ambition; some it renders anxious for the acquisition of wealth, and distresses by the possession of the thing desired; some it condemns to solitude, and others to have their doors continually crouded with visitors; here one bewails the conduct of his children, there one grieves their loss. Tears will sooner fail us than their causes, which only oblivion can remove. ‘ On every hand our evils overbalance our advantages; we are surrounded with dangers; we rush forward into un-
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tried situations ; we are enraged without having received provocation ; like wild beasts we destroy those we do not hate ; we wish for favourable gales, which lead us only to destruction ; the earth yawns wide, ready for our death : ' *Seneca*.---Other animals unite together against enemies of a kind different from their own, while man suffers most injuries from his own species.' *Pliny*.

POLITICALLY.---*Esto antiqua virtute et fide !* Man, instead of following that which is right, is subjected to the guidance of manifest error ; this envelopes all his faculties under the thick veil of custom, as soon as he is born ; according to its dictates he is fed, educated, brought up, and directed, in all things ; and by its arbitrary rules his honesty, fortitude, wisdom, morality, and religion, are judged of ; thus, governed by opinion, he lives conformably to custom, instead of being guided by reason. Though sent into the world a perishable being, (for all are evidently born to suffer,) instead of endeavouring to secure those things which are most advantageous and truly beneficial, he, infatuated by the smiles of fortune, anxiously collects her gaudy trifles for future enjoyment, and neglects her real benefits ; he is driven to madness by envious snarlers ; he persecutes with hatred the truly religious for differing from himself in speculative opinions ; he excites numberless broils, not that he may do good, but for a purpose that even himself is ignorant of. He wastes his precious and irrecoverable time in trifles ; he thinks lightly of immortal and eternal concerns, while regulating the succession of his posterity ; and perpetually entering on new projects, forgetful of his real condition, he builds palaces instead of preparing his grave ; till at length, in the midst of his schemes, death seizes him ; and then, first opening his eyes, he perceives, O man ! that all is delusion. ' Thus we live as if immortal, and first learn in death that we have to die : ' *Seneca*.

MORALLY.

MORALLY.---*Benefac et letare!* Man is composed of an animated medullary substance, which prompts him to that which is right; and of a bodily frame liable to impressions, which instigates him to the enjoyment of pleasure. In his natural state he is foolish, wanton, an inconsiderate follower of example, ambitious, profuse, dissatisfied, cunning, peevish, invidious, malicious, and covetous; by the influence of just morals he is transformed to be attentive, chaste, considerate, modest, temperate, quiet, sincere, mild, beneficent, grateful, and contented. 'Sorrow, luxury, ambition, avarice, the desire of life, and anxiety for the future, are common to all animals:' *Pliny*.

THEOLOGICALLY.---*Memento Creatoris tui!* Man, the ultimate purpose of creation, and masterpiece of the works of Omnipotence, was placed on earth that he might contemplate its perfections; he was endowed with sapient reason, and made capable of forming conclusions from the impressions of his senses, that, from a consideration of created objects, he might know their Creator as the Almighty, the Infinite, the Omniscient, the Eternal, God: that we may live morally under his governing care, it is requisite that we have a thorough conviction of his existence, and must have it ever in remembrance. 'There are two things which lead to a knowledge of God; creation and revelation:' *Augustine*.---'God, therefore, may be found out by the light of nature, but is only to be known by the assistance of doctrine:' *Tertullian*.---'Man alone has the inestimable privilege of contemplating the perfections of God, who is the author both of nature and of revelation:' *Ibid*.---'Learn that God has both ordered you to exist, and that you should study to act that part properly which is allotted for you in life:' *Perf. Sat.* iii. 71.

In the *Systema Naturæ*, MAN (*Homo*) is ranked as a distinct genus of the order *Primates* or "Chiefs," belonging to the *Mammalia* class of animals, or those which

which nourish their young by means of lactifareous teats or paps. Of this genus he is the only species; and denominated *Sapiens*, as being endowed with wisdom far superior to, or rather in exclusion of, all other animals---He *varies*, from climate, education, and habits; and the following varieties, exclusive of *wild men*, are enumerated by Linnæus.

Americans. "Of copper-coloured complexion, choleric constitution, and remarkably erect."---Their hair is black, lank, and coarse; their nostrils are wide; their features harsh, and the chin is scantily supplied with beard. Are obstinate in their tempers; free and satisfied with their condition; and are regulated in all their proceedings by traditional customs.---Paint their skin with red streaks.

Europeans. "Of fair complexion, sanguine temperament, and brawny form." The hair is flowing, and of various shades of brown; the eyes are mostly blue. ---They are of gentle manners, acute in judgment, of quick invention, and governed by fixed laws.---Dress in close vestments.

Asiatics. "Of sooty complexion, melancholic temperament, and rigid fibre."---The hair is strong, black, and lank; the eyes are dark brown.---They are of grave, haughty, and covetous, manners; and are governed by opinions.---Dress in loose garments.

Africans. "Of black complexion, phlegmatic temperament, and relaxed fibre."---The hair is black and frizly; the skin soft and silky; the nose flat; the lips are thick; and the female has a natural apron, and long lax breasts.---They are of crafty, indolent, and careless, dispositions, and governed in their actions by caprice.---Anoint the skin with grease.

Monsters. Of these there are several varieties; the first and second of which, in the following list, are occasioned by peculiarity of climate, while the rest are produced by artificial management. 1. *Alpini*; The inhabitants of the northern mountains: they are small in stature, active and timid in their dispositions. 2.

-*Patagonici*:

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Patagonici: The Patagonians of South America; of vast size, and indolent in their manners. 3. *Monorchides*: The Hottentots; having one testicle extirpated. 4. *Imberbes*: Most of the American nations; who eradicate their beards and the hair from every part of the body, except the scalp. 5. *Macrocephali*: The Chinese; who have their heads artificially forced into a conical form. 6. *Plagiocephali*: The Canadians; who have the fore part of their heads flattened, when young, by compression.---*Wild men*, and animals resembling man, will be given under a distinct head.

The following arrangements of the varieties in the human species is offered by Dr. Gmelin as more convenient than that of Linnæus.

White: (*Hom. Albus.*) Formed by the rules of symmetrical elegance and beauty; or at least what we consider as such.---This division includes almost all the inhabitants of Europe; those of Asia on this side of the Oby, the Caspian, Mount-Imaus, and the Ganges; likewise the natives of the north of Africa, of Greenland, and the Esquimaux.

Brown: (*Hom. Badius.*) Of a yellowish brown colour; has scanty hair, flat features, and small eyes.---This variety takes in the whole inhabitants of Asia not included in the preceding division.

Black: (*Hom. Niger.*) Of black complexion; has frizly hair, a flat nose, and thick lips.---The whole inhabitants of Africa, excepting those of its more northern parts.

Copper-coloured: (*Hom. Cupreus.*) The complexion of the skin resembles the colour of copper not burnished.---The whole inhabitants of America, except the Greenlanders and Esquimaux.

Tawny: (*Hom. Fuscus.*) Chiefly of a dark blackish-brown colour, having a broad nose, and harsh coarse straight hair.---The inhabitants of the southern islands, and most of the Indian islands.

Those characters in the form of man by which he is distinguished from brute animals, are reducible to

two heads. The first is the strength of the muscles of the legs, by which the body is supported in a vertical position above them; the second consists in the articulation of the head with the neck by the middle of its base. We stand upright, bend our body, and walk, without thinking on the power by which we are supported in these several positions. This power resides chiefly in the muscles which constitute the principal part of the calf of the leg. Their exertion is felt, and their motion is visible externally when we stand upright and bend our body backwards and forwards. This power is no less great when we walk even on an horizontal plane. In ascending a height, the weight of the body is more sensibly felt than in descending. All these motions are natural to man. Other animals, on the contrary, when placed on their hind legs, are either incapable of performing them at all, or do it partially, with great difficulty, and for a very short time. The *gibbon*, and the *jocko* or *orang-outang*, are the animals most resembling man in their construction: they can stand upright with much less difficulty than other brutes; but the restraint they are under in this attitude plainly shews that it is not natural to them. The reason is, that the muscles in the back part of the leg in the gibbon and the jocko are not, as in man, sufficiently large to form a calf, and consequently not sufficiently strong to support the thighs and body in a vertical line, and to preserve them in that posture.---The attitudes proper to man, and to the animals, are pointed out by the different manners in which the head is articulated with the neck. The two points, by which the osseous part of the head is connected with the first vertebra of the neck, and on which every movement of the head is made with the greatest facility, are placed at the edge of the great foramen of the occipital bone, which in man is situated near the centre of the base of the cranium, affords a passage for the medullary substance into the vertebræ,

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and determines the place of the articulation of the head with the neck. The body and neck being, according to the natural attitude, in a vertical direction; the head must be placed in equilibrium upon the vertebræ, as upon a pivot or point of support. The face is on a vertical line, almost parallel to that of the body and neck. The jaws, which are very short, compared with those of most other animals, extend very little farther forwards than the forehead.---No animal has, like man, its hind legs as long as the body, neck, and head, taken together, measuring from the top of the head to the os pubis.---In the frame of the human body the principal parts are nearly the same with those of other animals; but in the connection and form of the bones, there is as great a difference as in the attitudes proper to each. Were a man to assume the natural posture of quadrupeds, and try to walk by the help of his hands and feet, he would find himself in a very unnatural situation; he could not move his feet and head but with the greatest difficulty and pain; and, let him make what exertions he pleased, he would find it impossible to attain a steady and continual pace. The principal obstacles he would meet with would arise from the structure of the pelvis, the hands, the feet, and the head.---The plane of the great occipital foramen, which in man is almost horizontal, puts the head in a kind of equilibrium upon the neck, when we stand erect in our natural attitude; but, when we are in the attitude of quadrupeds, it prevents us from raising our head so as to look forwards, because the movement of the head is stopped by the protuberance of the occiput, which then approaches too near the vertebræ of the neck.---In most animals, the foramen magnum of the occipital bone is situated at the back part of the head; the jaws are very long; the occiput has no protuberance beyond the aperture, the plane of which is in a vertical direction, or inclined a little forwards or backwards; so that the head is pendant,

dant, and joined to the neck by its posterior part. This position of the head enables quadrupeds, though their bodies are in a horizontal direction, to present their muzzle forwards, and to raise it so as to reach above them, or to touch the earth with the extremity of their jaws when they bring their neck and head down to their feet. In the attitude of quadrupeds, man could touch the earth only with the fore part or the top of the head.---When man is standing, his heel rests upon the earth as well as the other parts of his foot; when he walks, it is the first part that touches the ground; man can stand on one foot: these are peculiarities in structure and in the manner of moving which are not to be found in any other animals. We may therefore conclude that man cannot be ranked in the class of quadrupeds. We may add, that in man the brain is much larger, and the jaws much shorter, than in any other animal. The brain, by its great extent, forms the protuberance of the occipital bone, the forehead, and all that part of the head which is above the ears. In animals, the brain is so small, that most of them have no occiput, or the front is either wanting or little raised. In animals which have large foreheads, such as the horse, the ox, the elephant, &c. they are placed as low, and even lower than the ears. These animals likewise want the occiput, and the top of the head is of very small extent. The jaws, which form the greatest portion of the muzzle, are large in proportion to the smallness of the brain. The length of the muzzle varies in different animals: in solipede animals it is very long; it is short in the orang-outang; and in man it does not exist at all. No beard grows on the muzzle: this part is wanting in every animal.

Anatomists have employed much pains in the study of the material part of man, and of that organization which determines his place in the animal creation. From tracing and combining his different external

parts ; from observing that his body is in some places covered with hair ; that he can walk upon his hands and his feet at the same time, in the manner of quadrupeds ; that, like certain animals which hold their food in their paws, he has two clavicles ; that the female brings forth her young alive, and that her breasts are supplied with milk : from these circumstances some naturalists have been led to assign man a place in the class of viviparous quadrupeds. But, from the above observations, such an arrangement appears defective, arbitrary, and absurd. Man is not a quadruped : of all the animals, he alone can support himself continually, and without restraint, in an erect posture, that is, with his head and body in a vertical line upon his legs. In this majestic and dignified attitude, he can change his place, survey this earth which he inhabits, and turn his eyes towards the vault of heaven. By a noble and easy gait, he preserves an equilibrium in the several parts of his body, and transports himself from one place to another with different degrees of celerity. To man alone nature has denied a covering ; but still he is her masterpiece, the last work which came from the hands of the Almighty Artist, the sovereign and the chief of animals, a world in miniature, the centre which connects the universe together. The form of his body, the organs whereof are constructed in such a manner as to produce a much greater effect than those of other animals, announces his power. Every thing demonstrates the excellence of his nature, and the immense distance placed by the bounty of the Creator between man and beast. Man is a reasonable being ; brute animals are deprived of that noble faculty. The weakest and most stupid of the human race is able to manage the most sagacious quadruped ; he commands it, and makes it subservient to his use. The operations of brutes are purely the effect of mechanical impulse, and continue always the same ; human works are varied without end, and infinitely

infinitely diversified in the manner of execution. The soul of man is free, independent, and immortal. He is fitted for the study of science, and the cultivation of art; he has the exclusive privilege of examining every thing which has existence, and of holding communication with his fellow-creatures by language, by particular motions of the body, and by marks and characters mutually agreed upon. Hence arises that physical pre-eminence which he enjoys over all animals; and hence that power which he possesses over the elements, and (so to speak) over Nature itself. Man, therefore, is unequalled in his kind; though the individuals thereof differ greatly from one another in figure, stature, colour, manners, and dispositions. The globe, which man inhabits, is covered with the productions of his industry and the works of his hands: it is his labour, in short, which gives a value to the whole terrestrial mass.

Of the mode and manner of the propagation and generation of man, physiologists and naturalists have been much divided in opinion. Many curious theories have been suggested by Buffon, Lewenhoeck, and others, who have made the construction and powers of the genital organs both of man and woman, and the semen and prolific juice of both the animal and vegetable worlds, a subject of their particular enquiry; and is a very curious speculation. But as the subject comes more properly under the tenth section of this work, shewing the generation and reproduction of all things, we shall there treat this matter very much at large, with the assistance of new lights and discoveries in the female uterine system, that have not yet been laid before the public eye; and will be embellished with most interesting plates, shewing the moment of conception; the progressive formation and nourishment of the fœtus, in nine distinct figures, adapted to the nine months of gestation, taken from real human embryos, extracted from different females, and

and preserved as a most important curiosity in Rack-strow's Museum, near Temple-bar, Fleet-street, London; also plates representing the action of *quicken-ing*; insensible perspiration; embryos of different brute animals, &c.

Nothing exhibits such a striking picture of our weakness as the condition of an infant immediately after birth. Incapable of employing its organs, it needs assistance of every kind. In the first moments of our existence, we present an image of pain and misery, and are more weak and helpless than the young of any other animal. At birth, the infant passes from one element to another: when it leaves the gentle warmth of the tranquil fluid by which it was completely surrounded when in the womb of the mother, it becomes exposed to the impressions of the air, and instantly feels the effects of that active element. The air acting upon the olfactory nerves, and upon the organs of respiration, produces a shock something like sneezing, by which the breast is expanded, and the air admitted into the lungs. In the mean time, the agitation of the diaphragm presses upon the viscera of the abdomen, and the excrements are thus for the first time discharged from the intestines, and the urine from the bladder. The air dilates the vesicles of the lungs, and, after being rarefied to a certain degree, is expelled by the spring of the dilated fibres re-acting upon this rarefied fluid. The infant now respire; and articulates sounds, or cries.---Most animals are blind for some days after birth: infants open their eyes to the light the moment they come into the world; but they are dull, fixed, and commonly blue. The new-born child cannot distinguish objects, because he is incapable of fixing his eyes upon them. The organ of vision is yet imperfect; the cornea is wrinkled; and perhaps the retina is too soft for receiving the images of external objects, and for communicating the sensation of distinct vision. At the end of forty days,

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the infant begins to hear and to smile. About the same time it begins to look at bright objects, and frequently to turn its eyes towards the window, a candle, or any light. Now likewise it begins to weep; for its former cries and groans were not accompanied with tears. Smiles and tears are the effect of two internal sensations, both of which depend on the action of the mind. Thus they are peculiar to the human race, and serve to express mental pain or pleasure; while the cries, motions, and other marks of bodily pain and pleasure, are common to man, and most of the other animals. Considering the subject as metaphysicians, we shall find that pain and pleasure are the universal power which sets all our passions in motion.

The size of an infant born at the full time is commonly about twenty-two inches; and that *fetus*, which nine months before was an imperceptible bubble, now weighs ten or twelve pounds, and sometimes more. The head is large in proportion to the body; and this disproportion, which is still greater in the first stage of the *fœtus*, continues during the period of infancy. The skin of a new-born child is of a reddish colour, because it is so fine and transparent as to allow a slight tint of the colour of the blood to shine through. The form of the body and members is by no means perfect in a child soon after birth; all the parts appear to be swollen. At the end of three days, a kind of jaundice generally comes on, and at the same time milk is to be found in the breasts of the infant, which may be squeezed out by the fingers. The swelling decreases as the child grows up.

The liquor contained in the amnios leaves a viscid whitish matter upon the body of the child. In this country we have the precaution to wash the new-born infant only with warm water; but it is the custom with whole nations inhabiting the coldest climates, to plunge their infants into cold water as soon as they are born, without their receiving the least injury. It

is even said that the Laplanders leave their children in the snow till the cold has almost stopped their respiration, and then plunge them into a warm bath. Among these people, the children are also washed thrice a-day during the first year of their life. The inhabitants of northern countries are persuaded that the cold bath tends to make men stronger and more robust, and on that account accustom their children to the use of it from their infancy. The truth is, that we are totally ignorant of the power of habit, or how far it can make our bodies capable of suffering, of acquiring, or of losing.

The child is not allowed to suck as soon as it is born; but time is given for discharging the liquor and slime from the stomach, and the *meconium* or excrement, which is of a black colour, from the intestines. As these substances might sour the milk, a little diluted wine mixed with sugar is first given to the infant, and the breast is not presented to it before ten or twelve hours have elapsed.

The young of quadrupeds can of themselves find the way to the teat of the mother: it is not so with man; the mother, in order to suckle her child, must raise it to her breasts; and, at this feeble period of life, the infant can express its wants only by its cries.

Though the body is very delicate in the state of infancy, it is then less sensible of cold than at any other part of life. The internal heat appears to be greater: the pulse in children is much greater than in adults; from which we are certainly intitled to infer, that the internal heat is greater in the same proportion. For the same reason, it is evident that small animals have more heat than large ones; for the beating of the heart and of the arteries is always quicker in proportion to the smallness of the animal. The strokes of the heart in a sparrow succeed one another so rapidly, that they can scarcely be counted.

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Till three years of age, the life of a child is very precarious. In the two or three following years, it becomes more certain; and at six or seven years of age, a child has a better chance of living than at any other period of life. From the bills of mortality published at London, it appears, that, of a certain number of children born at the same time, one half of them die the three first years: according to which, one half of the human race are cut off before they are three years of age. But the mortality among children is not nearly so great every where as in London. *M. Dupré de Saint Maur*, from a great number of observations made in France, has shewn that half of the children born at the same time are not extinct till seven or eight years have elapsed.

The period of infancy is followed by that of *adulthood*. This begins, together with puberty, at the age of twelve or fourteen, and commonly ends in girls at fifteen, and in boys at eighteen, but sometimes not till twenty-one, twenty-three, and twenty-five, years of age. According to its etymology (being derived from the Latin word *adulthood*), it is completed when the body has attained its full height. Thus, puberty accompanies adulthood, and precedes youth. This is the spring of life; this is the season of pleasures, of loves, and of graces: but alas! this smiling season is of short duration. Hitherto nature seems to have had nothing in view but the preservation and increase of her work: she has made no provision for the infant except what is necessary to its life and growth. It has lived, or rather enjoyed a kind of vegetable existence, which was shut up within itself, and which it was incapable of communicating. In this first stage of life, reason is still asleep: but the principles of life soon multiply, and man has not only what is necessary to his own existence, but what enables him to give existence to others. This redundancy of life, this source of health and vigour,

can no longer be confined, but endeavours to diffuse and expand itself.

Among all races of mankind, the females arrive at puberty sooner than the males; but the age of puberty is different in different nations, and seems partly to depend on the temperature of the climate and the quality of the food. In all the southern countries of Europe, and in cities, the greatest part of girls arrive at puberty about twelve, and boys about fourteen, years of age. But in the northern parts, and in the country, girls scarcely arrive at puberty till they are fourteen or fifteen, and boys not till they are sixteen or seventeen. In our climate, girls, for the greatest part, have attained complete maturity at eighteen, and boys at twenty, years of age.

Marriage is a state suitable to man, wherein he is to make use of those faculties acquired by puberty. At this period of life, the desire of producing a being like himself is strongly felt. The external form and the correspondence of the organs of sex occasion without doubt that irresistible attraction which unites the sexes and perpetuates the race. By connecting pleasure with the propagation of the species, Nature has provided most effectually for the continuance of her work. *Increase and multiply* is the express command of the Creator, and one of the natural functions of life. We may add, that at the age of puberty a thousand impressions act upon the nervous system, and reduce man to such a situation that he feels his existence only in that gratification which then appears to become the seat of his soul, and which engrosses the whole sensibility of which he is susceptible. But young men know not of how great importance it is to prolong this smiling season of their days, whereon the happiness or misery of their future life so much depends. Then they look not forwards to futurity, nor reflect on what is past, nor enjoy present pleasures with moderation. How many cease to be men, or at least to have the faculties of men,

men, before the age of thirty? Nature must not be forced: like a true mother, her object is the sober and discreet union of the sexes. It is sufficient to obey when she commands, and to answer when she calls. Such is the physical order which the Author of nature, the great preserver of the species as well as the individual, has appointed to induce man, by the attraction of pleasure, to propagate and continue his race.

According to the ordinary course of nature, women are not fit for conception till after the first appearance of the terms. When these stop, which generally happens about forty or fifty years of age, they are barren ever after. Some, however, have become mothers before they have experienced any menstrual discharge; and others have conceived at the age of sixty, and sometimes at a more advanced age. Such examples, though not unfrequent, must be considered as exceptions to the general rule; but they are sufficient to shew that the menstrual discharge is not essential to generation. The age at which man acquires the faculty of procreating is not so distinctly marked. In order to the production of semen, the body must have attained a certain growth, which generally happens between twelve and eighteen years of age. At sixty or seventy, when the body begins to be enervated by old age, the voice becomes weaker, the semen is secreted in smaller quantities, and it is often unprolific. There are instances, however, of old men who have procreated at the age of eighty or ninety. Boys have been found who had the faculty of generating at nine, ten, or eleven, years of age; and young girls who have become pregnant at the age of seven, eight, and nine. But such facts, which are very rare, ought to be considered as extraordinary phenomena in the course of nature.

At the age of puberty, or a few years after, the body attains its full stature. Some young men grow no taller after fifteen or sixteen, and others continue

to grow till the age of twenty or twenty-three. At this period they are very slender: but by degrees the members swell and begin to assume their proper shape, and, before the age of thirty, the body in men has attained its greatest perfection with regard to strength, consistence, and symmetry. Adolescence ends at the age of twenty or twenty-five; and at this period youth (according to the division which has been made of the years of man's life into different ages) begins. It continues till the age of thirty or thirty-five.

The common stature of men is about five feet and three, four, five, six, or seven, inches high; and of women about five feet and two, three, and four, inches. Men below five feet are of a small stature. The Laplanders do not exceed four feet and a half; and the natives of some other countries are still smaller. Women attain their full height sooner than men. Haller computes, that, in the temperate climates of Europe, the medium stature of men is about five feet five or six inches. It is observed by the same author, that in Switzerland the inhabitants of the plains are taller than those of the mountains. It is difficult to ascertain with precision the actual limits of the human stature. In surveying the inhabited earth, we find greater differences in the statures of individuals than in those of nations. In the same climate, among the same people, and sometimes in the same family, there are men whose stature is either too tall or too diminutive. ---The body having acquired its full height during the period of adolescence, and its full dimensions in youth, remains for some years in the same state before it begins to decay. This is the period of manhood, which extends from the age of thirty or thirty-five to that of forty or forty-five years. During this stage, the powers of the body continue in full vigour, and the principal change which takes place in the human figure arises from the formation of fat in different parts. Excessive fatness disfigures the body,
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and becomes a very cumbersome and inconvenient load, and in many cases prejudicial to health.

The body of a well-shaped man ought to be square, the muscles ought to be strongly marked, the contour of the members boldly delineated, and the features of the face well defined. In women, all the parts are more rounded and softer, the features are more delicate, and the complexion brighter. To man belong strength and majesty; gracefulness and beauty are the portion of the other sex.---Every thing in both sexes points them out as the sovereigns of the earth; even the external appearance of man declares his superiority to other living creatures. His body is erect; his attitude is that of command; his august countenance, which is turned towards heaven, bears the impression of his dignity. The image of his soul is painted in his face; the excellence of his nature pierces through the material organs, and gives a fire and animation to the features of his countenance. His majestic deportment, his firm and emboldened gait, announce the nobleness of his rank. He touches the earth only with his extremity; he views it only at a distance, and seems to despise it. It has been justly observed, that the countenance of man is the mirror of his mind. In the looks of no animal are the expressions of passion painted with such energy and rapidity, and with such gentle gradations and shades, as in those of man. We know, that in certain emotions of the mind, the blood rises to the face, and produces blushing; and that in others the countenance turns pale. These two symptoms, the appearance of which depend on the structure and transparency of the reticulum, especially redness, constitute a peculiar beauty. In our climates, the natural colour of the face of a man in good health is white, with a lively red suffused upon the cheeks. Paleness of the countenance is always a suspicious symptom. That colour which is shaded with black is a sign of melancholy and of vitiated bile; and constant

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and universal redness is a proof that the blood is carried with too great impetuosity to the brain. A livid colour is a morbid and dangerous symptom; and that which has a tint of yellow is a sign of jaundice or repletion of bile. The colour of the skin is frequently altered by want of sleep or of nourishment, or by looseness and diarrhoea.

Notwithstanding the general similitude of countenance in nations and families, there is a wonderful diversity of features. No one, however, is at a loss to recollect the person to whom he intends to speak, provided he has once fully seen him. One man has liveliness and gaiety painted in his countenance, and announces before-hand, by the cheerfulness of his appearance, the character which he is to support in society. The tears which bedew the cheeks of another man would excite compassion in the most unfeeling heart. Thus the face of man is the rendezvous of the symptoms both of his moral and physical affections: tranquillity, anger, threatening, joy, smiles, laughter, malice, love, envy, jealousy, pride, contempt, disdain or indignation, irony, arrogance, tears, terror, astonishment, horror, fear, shame or humiliation, sorrow and affliction, compassion, meditation, particular convulsions, sleep, death, &c. The difference of these characters is of sufficient importance to form a principal article in the natural history of man.

When the mind is at ease, all the features of the face are in a state of profound tranquillity. Their proportion, harmony, and union, point out the serenity of the thoughts. But when the soul is agitated, the human face becomes a living canvas, whereon the passions are represented with equal delicacy and energy, where every emotion of the soul is expressed by some feature, and every action by some mark; the lively impression of which anticipates the will, and reveals by pathetic signs our secret agitations, and those intentions which we were anxious to conceal. It

is particularly in the eyes that the soul is painted in the strongest and liveliest colours, and with the most delicate shades.

The different colour of the eyes are, dark hazel, light hazel, green, blue, grey, and a whitish-grey. The most common of these colours are hazel and blue, both of which are often found in the same eye. Eyes which are commonly called black are only dark hazel; they appear black in consequence of being contrasted with the white of the eye. Wherever there is a tint of blue, however slight, it becomes the prevailing colour, and outshines the hazel, with which it is intermixed, to such a degree, that the mixture cannot be perceived without a very narrow examination. The most beautiful eyes are those which appear black or blue. In the former, there is more expression and vivacity; in the latter, more sweetness and perhaps delicacy. Next to the eyes, the parts of the face by which the physiognomy is most strongly marked are the eye-brows. Being of a different nature from the other parts, their effect is increased by contrast. They are like a shade in a picture, which gives relief to the other colours and forms.

The forehead is one of the largest parts of the face, and contributes most to its beauty. Every body knows of how great importance the hair is in the physiognomy, and that baldness is a very great defect. When old age begins to make its approaches, the hair which first falls off is that which covers the crown of the head and the parts above the temples. We seldom see the hair of the lower parts of the temples, or of the back of the head, completely fall off. Baldness is peculiar to men: women do not naturally lose their hair, though it becomes white as well as that of the men at the approach of old age.

The nose is the most prominent feature of the face. But it has very little motion, and that only in the most violent passions, it contributes less to the expression than

than to the beauty of the countenance. The nose is seldom perpendicular to the middle of the face, but for the most part is turned to one side or the other. The cause of this irregularity, which, according to the painters, is perfectly consistent with beauty, and of which even the want would be a deformity, appears to be frequent pressure on one side of the cartilage of the child's nose against the breast of the mother when it receives suck. At this early period of life, the cartilages and bones have acquired very little solidity, and are easily bent, as may be observed in the legs and thighs of some individuals, who have been injured by the bandages of the swaddling clothes.

Next to the eyes, the mouth and lips have the greatest motion and expression. These motions are under the influence of the passions. The mouth, which is set off by the vermillion of the lips and the enamel of the teeth, marks, by the various forms which it assumes, their different characters. The organ of the voice likewise gives animation to this feature, and communicates to it more life and expression than is possessed by any of the rest. The cheeks are uniform features, and have no motion or expression excepting from that involuntary redness or paleness with which they are covered in different passions, such as shame, anger, pride, and joy, on the one hand; and fear, terror, and sorrow, on the other.

In different passions, the whole head assumes different positions, and is affected with different motions. It hangs forward during shame, humility, and sorrow; it inclines to one side in languor and compassion; it is elevated in pride, erect and fixed in obstinacy and self-conceit; in astonishment it is thrown backwards; and it moves from side to side in contempt, ridicule, anger, and indignation.---In grief, joy, love, shame, and compassion, the eyes swell, and the tears flow. The effusion of tears is always accompanied with an extension of the muscles of the face, which opens the mouth.

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---In sorrow, the corners of the mouth are depressed, the under-lip rises, the eye-lids fall down, the pupil of the eye is raised and half concealed by the eye-lid. The other muscles of the face are relaxed, so that the distance between the eyes and the mouth is greater than ordinary; and consequently the countenance appears to be lengthened.---In fear, terror, consternation, and horror, the forehead is wrinkled, the eye-brows are raised, the eye-lids are opened as wide as possible, the upper lid uncovers a part of the white above the pupil, which is depressed and partly concealed by the under lid. At the same time, the mouth opens wide, the lips recede from each other, and discover the teeth both above and below.---In contempt and derision, the upper lip is raised at one side and exposes the teeth, while the other side of the lip moves a little and wears the appearance of a smile. The nostril on the elevated side of the lip shrivels up, and the corner of the mouth falls down. The eye on the same side is almost shut, while the other is open as usual; but the pupils of both are depressed, as when one looks down from a height.---In jealousy, envy, and malice, the eye-brows fall down and are wrinkled; the eye-lids are elevated, and the pupils are depressed. The upper lip is elevated on both sides, while the corners of the mouth are a little depressed, and the under lip rises to join the middle of the upper.---In laughter, the corners of the mouth are drawn back and a little elevated; the upper parts of the cheeks rise; the eyes are more or less closed; the upper lip rises, and the under one falls down; the mouth opens; and, in cases of immoderate laughter, the skin of the nose wrinkles. That gentler and more gracious kind of laughter which is called *smiling*, is seated wholly in the parts of the mouth. The upper lip rises; the angles of the mouth are drawn back: the cheeks are puffed up; the eye-lids approach one another; and a small twinkling is observed in the eyes. It is very extraordinary,

traordinary, that laughter may be excited either by a moral cause without the immediate action of external objects, or by a particular irritation of the nerves without any feeling of joy. Thus an involuntary laugh is excited by a slight tickling of the lips, of the palm of the hand, of the sole of the foot, of the arm-pits, and, in short, below the middle of the ribs. We laugh when two dissimilar ideas, the union of which was unexpected, are presented to the mind at the same time, and when one or both of these ideas, or their union, includes some absurdity which excites an emotion of disdain mingled with joy. In general, striking contrasts never fail to produce laughter.---A change is produced in the features of the countenance by weeping as well as by laughing. When we weep, the under lip is separated from the teeth, the forehead is wrinkled, the eye-brows are depressed, the dimple, which gives a gracefulness to laughter, forsakes the cheek; the eyes are more compressed, and almost constantly bathed in tears, which in laughter flow more seldom and less copiously.

The arms, hands, and every part of the body, contribute to the expression of the passions. In joy, for instance, all the members of the body are agitated with quick and various motions. In languor and sorrow, the arms hang down, and the whole body remains fixed and immovable. In admiration and surprise, this total suspension of motion is likewise observed. In love, desire, and hope, the head and eyes are raised to heaven, and seem to solicit the wished-for good; the body leans forward as if to approach it; the arms are stretched out, and seem to seize beforehand the beloved object. On the contrary, in fear, hatred, and horror, the arms seem to push backward and repel the object of our aversion; we turn away our head and eyes as if to avoid the sight of it; we recoil in order to shun it.

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Although the human body is externally much more delicate than that of any other animal, yet it is very nervous, and perhaps stronger in proportion to its size than that of the strongest animals. We are assured that the porters at Constantinople carry burdens of nine hundred pounds weight. A thousand wonderful stories are related of the Hottentots and other savages concerning their agility in running. Civilized man knows not the full extent of his powers, nor how much he loses by that effeminacy and inactivity by which they are weakened and destroyed. He is contented even to be ignorant of the strength and vigour which his members are capable of acquiring by motion, and by being accustomed to severe exercises, as is observed in runners, tumblers, and rope-dancers. The conclusion is, therefore, founded on the most just and indisputable induction and analogy.---The attitude of walking is less fatiguing to man than that in which he is placed when he is stopped in running. Every time he sets his foot upon the ground, he passes over a more considerable space; the body leans forwards, and the arms follow the same direction; the respiration increases, and breathing becomes difficult. Leaping begins with great inflexions of the members; the body is then much shortened, but immediately stretches itself out with a great effort. The motions which accompany leaping make it very fatiguing.

It is observed that a cessation from exercise is not alone sufficient to restore the powers of the body when they are exhausted by fatigue. The springs, though not in action, are still wound up while we are awake, even when every movement is suspended. In sleep nature finds that repose which is suited to her wants, and the different organs enjoy a salutary relaxation. This is that wonderful state in which man, unconscious of his own existence, and sunk in apparent death, repairs the loss which his faculties have sustained, and seems to assume a new existence. In this state of

drowsiness and repose, the senses cease to act, the functions of the body are suspended, and it seems abandoned to itself. The external symptoms of sleep, which alone are the objects of our attention, are easily distinguished. At the approach of sleep, the eyes begin to wink, the eye-lids fall down, the head nods and hangs down: its fall astonishes the sleeper; he starts up, and makes an effort to drive away sleep, but in vain; a new inclination, stronger than the former, deprives him of the power of raising his head; his chin rests upon his breast, and in this position he enjoys a tranquil sleep.

The age of decline extends from forty or forty-five to sixty or sixty-five years of age. At this time of life, the diminution of the fat is the cause of those wrinkles which begin to appear in the face and some other parts of the body. The skin, not being supported by the same quantity of fat, and being incapable, from want of elasticity, of contracting, sinks down and forms folds. In the decline of life, a remarkable change takes place also in vision. In the vigour of our days, the crystalline lens being thicker and more diaphanous than the humours of the eye, enables us to read letters of a very small character at the distance of eight or ten inches. But when the age of decline comes on, the quantity of the humours of the eye diminishes, they lose their clearness, and the transparent cornea becomes less convex. To remedy this inconvenience, we place what we wish to read at a greater distance from the eye: but vision thereby is very little improved, because the image of the object becomes smaller and more obscure. Another mark of the decline of life is a weakness of the stomach, and indigestion, in most people who do not take sufficient exercise in proportion to the quantity and the quality of their food.---At sixty, sixty-three, or sixty-five years of age, the signs of decline become more and more visible, and indicate *old age*. This period

period commonly extends to the age of seventy, sometimes to seventy-five, but seldom to eighty. When the body is extenuated and bent by old age, man then becomes crazy. Craziness therefore is nothing but an *infirm old age*. The eyes and stomach then become weaker and weaker; leanness increases the number of the wrinkles; the beard and the hair become white; the strength and the memory begin to fail.---After seventy, or at most eighty, years of age, the life of man is nothing but labour and sorrow: such was the language of David near three thousand years ago. Some men of strong constitutions, and in good health, enjoy old age for a long time without decrepitude; but such instances are not very common. The infirmities of decrepitude continually increase, and at length death concludes the whole. This fatal term is uncertain. The only conclusions which we can form concerning the duration of life, must be derived from observations on a great number of men who were born at the same time, and who died at different ages.

The signs of decrepitude form a striking picture of weakness, and announce the approaching dissolution of the body. The memory totally fails; the nerves become hard and blunted; deafness and blindness take place; the senses of smell, of touch, and of taste, are destroyed; the appetite fails; the necessity of eating, and more frequently that of drinking, are alone felt; after the teeth fall out, mastication is imperfectly performed, and digestion is very bad; the lips fall inwards; the edges of the jaws can no longer approach one another; the muscles of the lower jaw become so weak, that they are unable to raise and support it; the body sinks down; the spine is bent outward; and the vertebræ grow together at the anterior part; the body becomes extremely lean; the strength fails; the decrepid wretch is unable to support himself; he is obliged to remain on a seat, or stretched in his bed: the bladder becomes paralytic; the intestines lose their

their spring; the circulation of the blood becomes slower; the strokes of the pulse no longer amount to the number of eighty in a minute, as in the vigour of life, but are reduced to twenty-four and sometimes fewer: respiration is slower; the body loses its heat; the circulation of the blood ceases; death follows: and the dream of life is no more.

Man, however, has no right to complain of the shortness of life. Throughout the whole of living beings, there are few who unite in a greater degree all the internal causes which tend to prolong its different periods. The term of gestation is very considerable; the rudiments of the teeth are very late in unfolding: his growth is slow; and is not completed before about twenty years have elapsed.---The age of puberty, also, is much later in man than in any other animal. In short, the parts of his body, being composed of a softer and more flexible substance, are not so soon hardened as those of inferior animals. Man, therefore, seems to receive at his birth the seeds of a long life: if he reaches not the distant period which nature seemed to promise him, it must be owing to accidental or acquired causes, foreign to himself. Instead of saying that he has finished his life, we ought rather to say that he has not completed it.---The natural and total duration of life is in some measure proportioned to the period of growth. A tree or animal, which soon acquires its full size, decays much sooner than another which continues to grow for a longer time. If it be true that the life of animals is eight times longer than the period of their growth, we might conclude that the boundaries of human life may be extended to a century and a half.

It does not appear that the life of man becomes shorter in proportion to the length of time the world has existed. In the days of the Psalmist, its ordinary limits did not exceed seventy or eighty years. No king of Judah lived beyond that period. When the Romans,

mans, however, were numbered by Vespasian, there were found in the empire, in that age of effeminacy, ten men aged an hundred and twenty and upwards. Among the princes of modern times, the late Frederic the Great of Prussia, lived to the age of 74. George II. of Britain lived to that of 77. Louis XIV. lived to the same age. Stanislaus king of Poland and duke of Lorrain exceeded that age. Pope Clement XII. lived to the age of 80. George I. of Britain attained the age of 83. Thomas Cockrum, aged 103 years, died at Lowestoff in Suffolk, in the year 1755. William Lecomte, a shepherd, died suddenly in 1776, in the county of Caux in Normandy, at the age of 110. Cramers, physician to the emperor, saw at Temeswar two brothers, the one aged 110 and the other 112, both of whom were fathers at that age. Saint Paul the hermit was 113 at his death. The Sieur Iswan-Horwarths, knight of the order of St. Louis, died at Sar-Albe in Lorrain in 1775, aged almost 111; he was a great hunter; he undertook a long journey a short time before his death, and performed it on horseback. Rosin Iwiwarouska died at Minsk in Lithuania at the age of 113. Fockjel Johannes died at Oldeborn in Friesland, aged 113 years and 16 days. Marfk Jones died in the year 1775 at Villejac in Hungary, aged 119. John Niethen of Bakler in Zealand lived to the age of 120. Eleonora Spicer died in 1773, at Accomack in Virginia, aged 121. John Argus was born in the village of Lastua in Turkey, and died the 6th of March 1779 at the age of 123; having six sons and three daughters, by whom he had posterity to the fifth generation; they amounted to the number of 160 souls, and all lived in the same village: his father died at the age of 120. In December 1777, there lived in Devonshire a farmer named John Brookey, who was 134 years of age, and had been fifteen times married. The Philosophical Transactions mention an Englishman of the name of Eccleston,

Eccleston, who lived to the age of 143. Another Englishman, of the name of Effingham, died in 1757, at the age of 144. Niels Jukens of Hammerfset in Denmark died in 1764, aged 146. Christian Jacob Drakemberg died in 1770 at Archufen, in the 146th year of his age; this old man of the north was born at Stavangar in Norway in 1624, and at the age of 130 married a widow of 60. In Norway some men have lived to the age of 150. John Rovin, who was born at Szatlova-Carantz-Betcher, in the bannat of Temeswar, lived to the age of 172, and his wife to that of 164, having been married to him during the space of 147 years; when Rovin died, their youngest son was 99 years of age. Peter Zoten, a peasant, and a countryman of John Rovin, died in 1724 at the age of 185: his youngest son was then 97 years of age. The history and whole-length pictures of John Rovin, Henry Jenkins, and Peter Zoten, are to be seen in the library of S. A. R. prince Charles at Brussels. Hanovins, professor at Dantzic, mentions in his Nomenclature an old man who died at the age of 184; and another still alive at Wallachia, whose age, according to this author, amounts to 186. Tho. Parr, of Shropshire, died November 16, 1635, aged 152. Henry Jenkins, of Yorkshire, died December 8, 1670, aged 169. Robert Montgomery, of Yorkshire, died in 1670, aged 126. James Sands, of Staffordshire, aged 140, and his wife aged 120. Countess of Desmond, of Ireland, aged 140. J. Sagar, of Lancashire, died in 1668, aged 112. --- Laurence, of Scotland, aged 140. Simon Sack, of Triona, died May 30, 1764, aged 141. Col. Thomas Winslow, of Ireland, died August 26, 1766, aged 146. Francis Conlist, of Yorkshire, died in January 1768, aged 150. Margaret Forster, aged 136, and her daughter aged 104, of Cumberland, were both living in 1771. Francis Bons, of France, died February 6, 1769, aged 121. James Bowles, of Killingworth, aged 152. John Tice,

Tice of Worcestershire, died March 1774, aged 125. John Mount, of Scotland, died Feb. 27, 1766, aged 136. A. Goldsmith, of France, died in June 1776, aged 140. Mary Yates, of Shropshire, died in 1776, aged 128. John Bales, of Northampton, died April 5, 1766, aged 126. William Ellis, of Liverpool, died August 16, 1780, aged 130. Louisa Truxo, a negress of Tucomea, South America, was living October 5, 1780, aged 175. Margaret Patten, of Lockneugh near Paisley, aged 138. Janet Taylor, of Fintray, Scotland, died October 10, 1780, aged 108. Richard Lloyd, of Montgomery, aged 133. Sufannah Hilliar, of Piddington, Northamptonshire, died Feb. 19, 1781, aged 110. Ann Cockbolt, of Stoke-Bruerne, Northamptonshire, died April 5, 1775, aged 105. James Hayley, of Middlewich, Cheshire, died March 17, 1781, aged 112. William Walker, who was a soldier at the battle of Edge-hill, lived to the age of 112. Hippocrates, physician, of Island of Cos, aged 104. Democritus, philosopher, of Abdera, aged 109. Galen, physician, of Pergam, aged 143. Albuna Marc, of Ethiopia, aged 150. Dumitur Raduly, of Haromszeck, Transylvania, died Jan. 18, 1702, aged 140. Titus Fullonius, of Bononia, aged 150. Abraham Paiba, of Charlestown, South Carolina, aged 142. L. Tertulla, of Arminium, aged 137. Lewis Cornaro, of Venice, aged 100. Robert Blakeney, Esq. of Armagh, Ireland, aged 114. Margaret Scott, of Dalkeith, Scotland, aged 125. W. Gulstone, of Ireland, aged 140. J. Bright, of Ludlow, aged 105. William Postell, of France, aged 120. Jane Reeves, of Essex, aged 103. W. Paulet, marquis of Winchester, of Hampshire, aged 106. John Wilson, of Suffolk, aged 116. Patrick Wian, of Lesbury, Northumberland, aged 115. M. Laurence, of Orcades, aged 140. Evan Williams, of Caermarthen work-house, was alive in October 1782, aged 145. John Jacobs, of Mount Jura, aged

aged 121. This man, in 1789, aged 120, quitted his native hills, and from the summit of Mount Jura undertook a journey to Versailles, to behold and return thanks to the national assembly for the vote which had freed him and his poor countrymen from the feudal yoke. In the early part of his life, he was a servant in the family of the prince de Beaufremont. His memory continued good to the last day of his life; and the principal inconveniencies which he felt from his great age were, that his sight was weakened, and the natural heat of his body was so diminished, that he shivered with cold in the middle of the dog-days if he was not sitting by a good fire. This old man was received in the body of the house by the national assembly, indulged with a chair, and directed to keep on his hat lest he should catch cold if he were to sit uncovered. A collection was made for him by the members, which exceeded 500*l.* sterling; but he lived not to return to Mount Jura. He was buried on Saturday the 31st of January 1790, with great funeral pomp, in the parish-church of St. Eustace, at Paris.

Matthew Tait, of Auchinleck, Airshire, died Feb. 19, 1792, aged 123: he served as a private at the taking of Gibraltar in 1704. Mrs. Sarah Haynes, of Winford, Somerset, died Dec. 1793, aged 103. Mrs. Freeman, of Falmouth, died in Dec. 1793, aged 118; her sight was not quick, but her intellects were perfect to the last. Sylvester Manclarke, of Lowestoff, Suffolk, died Jan. 1794, aged 107. Edward Collins, of Salisbury, died in Jan. 1794, aged 100. Mrs. Lally, of Bradford, Yorkshire, died the same month, in the 110th year of her age. Donald Macleod, of Isle of Sky, was living in May 1793, aged 105. There was living in Portsmouth poor-house, in May 1793, one Elizabeth Bennett, aged 104 years. In Feb. 1794, a soldier, named John Knowle, who was then in the 105th year of his age, applied to the lord-mayor of London for a walking-pais to Birmingham; the

the mayor offered him a riding-pass, but he said he could not bear the shaking and jolting of a carriage: he had served in the 37th regiment of foot, and was discharged at the age of 84: his right-eye and hearing were well, and he had all his front teeth but one.

Before we proceed to assign the common causes of longevity, it is proper to inquire into the manner of life and situation of those by whom it has been enjoyed. We find, then, that those who have lived to the greatest age have been such as did not attain their full growth till a very advanced period of life, and who have kept their appetites and passions under the most complete subjection. In a word, those who have exceeded 100 years, have in general been robust, laborious, sober, and careful to observe the strictest regimen. Enjoying a good constitution from nature, they have seldom or never been subject to disease. They have even enjoyed the greatest health and vigour, and retained the use of their senses to the last moment of their lives.

Among those who have led a life of contemplation and study, many have reached a very advanced age. Longevity is frequent among the different orders of religious, who by their statutes are confined to a moderate diet, and obliged to abstain from wine and the use of meat. Some celebrated anchorets have lived to a great age while they fed upon nothing but the wild roots and fruits which they found in the desert whither they had retired. The philosopher Xenophilus, who lived to the age of 106, was of the Pythagorean sect. It is well known, that those philosophers who held the transmigration of souls denied themselves the use of meat, because they imagined that killing an animal would be to assassinate another self. A country life has produced many sound and vigorous old men. It is supposed that a happy old age is attained with greater difficulty in towns than in the country. Sir Hans Sloane,^x Duverney, and Fontenelle, however,

are instances of men whose lives have been spent in cities, and yet extended to a very great length. It has been observed, that men deprived of reason live very long; which is to be imputed to their being exempt from those inquietudes which are the most deadly poison. Persons possessing a sufficiently good understanding, but destitute of ambition, have been found to enjoy very long life. Men who are devoid of pretensions, who are free from those cares which a desire of shining by a display of talents, or of acquiring dignity and power, necessarily brings in its train, who feel no regret for the past nor anxiety about the future, are strangers to those torments of the mind which waste and consume the body. To that tranquillity of soul, which is so excellent a prerogative of infancy, they add that of being long young by physical constitution, on which the moral has a striking and powerful influence.

Premature wisdom, and early talents, are often fitter to excite astonishment than expectation. The rapid unfolding of the moral faculties, by shortening the period of youth, seems to diminish in proportion the total duration of life. We have known a young lady of seventeen, who could speak very correctly seven languages: she translated and wrote Latin, Greek, Italian, Spanish, German, English, and French; but she died at the age of eighteen. The young man by whom she was asked in marriage, having been informed that he could not obtain her hand till he had made himself worthy of her by the same degree of talents and information, died the same year, and at the same age.

From the preceding observations, Dr. Haller has attempted to deduce the causes why a few men are longer exempted than others from the common fate.--- The circumstances which oppose their influence are independent of our will; such as the ravages of epidemic distempers, trouble and anxiety of mind, which

create diseases in the body, or the torments of ambition. It is necessary to live in a salubrious climate, to enjoy a fortune sufficiently easy to exclude those uneasy desires which create a feeling of want and privation, to be descended from healthy parents, to avoid drinking wine in youth, to drink water, and to eat little meat and a great deal of vegetables. It is necessary also to be temperate at meals; moderate in pleasures, study, and exercise; to be naturally inclined to cheerfulness; and to allot a due time to sleep and repose.--- Long life is certainly very rare; but, as has been already observed, we must distinguish between what is natural to the constitution of man and that which is the consequence of his condition. By the former he is made to be long-lived; but nature is arrested in her course by local and accidental causes, which is not always in our power to avoid: and when it is, we too commonly neglect it.

For since the celestial powers of the planets and constellations, as they rise upon, or descend below, the horizon, visibly influence the atmosphere with their qualities, and modulate and vary climates and seasons; so climates and seasons act upon the human temperature, and affect those parts the most sensibly, which the influence of the constellations have upon man's body, as expressed in most almanacs, and described in the plates subjoined to this section, which are the seats or sources of every primary disease. Hence every climate partaking more or less of the same vivifying rays of the sun, and being surrounded with the same atmosphere, admits the propagation and support of human life, wherever the transition is not too violent, and the extremes of heat and cold not incompatible with animal life.

The ingenious Dr. Rush of Philadelphia, has just published some very curious observations on the probable causes of longevity; and which he attributes principally to the following sources, viz.

Descent

Descent from long-lived Ancestors.---I have not found a single instance of a person who has lived to be 80 years old, in whom this was not the case. In some instances I found the descent was only from one, but in general it was from both parents. The knowledge of this fact may serve, not only to assist in calculating what are called the chances of lives, but it may be made useful to a physician. He may learn from it to cherish hopes of his patients in chronic and in some acute diseases, in proportion to the capacity of life they have derived from their ancestors.

Temperance in eating and drinking.---To this remark I found several exceptions. I met with one man of 84 years of age, who had been intemperate in eating; and four or five persons who had been intemperate in drinking ardent spirits. They had all been day-labourers, or had deferred drinking until they began to feel the languor of old age. I did not meet with a single person who had not, for the last forty or fifty years of their lives, used tea, coffee, and bread and butter, twice a day, as part of their diet. I am disposed to believe that those articles of diet do not materially affect the duration of human life, although they evidently impair the strength of the system. The duration of life does not appear to depend so much upon the strength of the body, or upon the quantity of its excitability, as upon the exact accommodation of stimuli to each of them. A watch-spring will last as long as an anchor, provided the forces which are capable of destroying both are in an exact ratio to their strength. The use of tea and coffee in diet seems to be happily suited to the change which has taken place in the human body by sedentary occupations, by which means, less nourishment and stimulus are required than formerly to support animal life.

A moderate Use of the Understanding.---It has long been an established truth, that literary men (other circumstances

cumstances being equal) are longer lived than other people. But it is not necessary that the understanding should be employed upon philosophical subjects to produce this influence upon human life. Business, politics, and religion, which are the objects of attention of men of all classes, impart a vigour to the understanding, which, by being conveyed to every part of the body, tends to produce health and long life.

Equanimity of Temper.---The violent and irregular actions of the passions tend to wear away the springs of life. Persons who live upon annuities in Europe have been observed to be longer lived, in equal circumstances, than other people. This is probably occasioned by their being exempted by the certainty of their subsistence from those fears of want which so frequently distract the minds, and thereby weaken the bodies, of people. Life-rents have been supposed to have influence in prolonging life. Perhaps the desire of life, in order to enjoy for as long as possible that property which cannot be enjoyed a second time by a child or relation, may be another cause of the longevity of persons who live upon certain incomes. It is a fact, that the desire of life is a very powerful stimulus in prolonging it, especially when that desire is supported by hope. This is obvious to physicians every day. Despair of recovery is the beginning of death in all diseases. But, obvious and reasonable as the effects of equanimity of temper are upon human life, there are some exceptions in favour of passionate men and women having attained to a great age. The morbid stimulus of anger, in these cases, was probably obviated by less degrees, or less active exercises, of the understanding, or by the defect or weakness of some of the other stimuli which kept up the motions of life.

Matrimony.---In the course of my enquiries, I met with only one person beyond eighty years of age who had never been married. I met with several women
who

who had borne from ten to twenty children, and suckled them all. I met with one woman, a native of Herefordshire in England, who is now in the 100th year of her age, who bore a child at 60, menstruated till 80, and frequently suckled two of her children (though born in succession to each other) at the same time. She had passed the greatest part of her life over a washing-tub.

I have not found sedentary employments to prevent long life, where they are not accompanied by intemperance in eating or drinking. This observation is not confined to literary men, nor to women only, in whom longevity without much exercise of body has been frequently observed. I met with one instance of a weaver, a second of a silversmith, and a third of a shoemaker, among the number of old people, whose histories have suggested those observations.

I have not found that acute nor that all chronic diseases shorten life. Dr. Franklin had two successive vomicas in his lungs before he was forty years of age*. I met with one man beyond eighty, who had survived a most violent attack of the yellow fever; a second, who had several of his bones fractured by falls and in frays; and many who had frequently been affected by intermittents. I met with one man of eighty-six, who had all his life been subject to syncope; another who had been for fifty years occasionally affected with a cough †; and two instances of men who had been affected for forty years with obstinate head-achs. I

* Dr. Franklin, who died in his 84th year, was descended from long-lived parents. His father died at 89, and his mother at 87. His father had seventeen children by two wives. The doctor informed me that he once sat down as one of eleven adult sons and daughters at his father's table. In an excursion he once made to that part of England from which his family migrated to America, he discovered, in a great grave-yard, the tomb-stones of several persons of his name, who had lived to be very old. These persons he supposed to have been his ancestors.

† This man's only remedy for his cough was the fine powder of dry Indian turnip, and honey.

met with only one person beyond eighty who had ever been affected by a disorder in the stomach; and in him it arose from an occasional rupture. Mr. John Strangers Hutton, of Philadelphia, who died last year in the 100th year of his age, informed me that he never had puked in his life. This circumstance is the more remarkable as he passed several years at sea when a young man*. These facts may serve to extend our ideas of the importance of a healthful state of the stomach in the animal œconomy, and thereby to add to our knowledge in the prognosis of diseases and in the chances of human life.

I have not found the loss of teeth to affect the duration of human life so much as might be expected. Edward Drinker, who lived to be 103 years old, lost his teeth thirty years before he died from drawing the hot smoke of tobacco into his mouth through a short pipe.

Dr. Sayre, of New Jersey, to whom I am indebted for several valuable histories of old persons, mentions one man aged 81, whose teeth began to decay at sixteen, and another of 90, who lost his teeth thirty years before he saw him. The gums, by becoming hard, perform, in part, the office of teeth. But may not the gastric juice of the stomach, like the tears and

* The venerable old man, whose history first suggested this remark, was born in New York in the year 1684. His grandfather lived to be 101, but was unable to walk for thirty years before he died, from an excessive quantity of fat. His mother died at 91. His constant drink was water, beer, and cyder. He had a fixed dislike to spirits of all kinds. His appetite was good, and he ate plentifully during the last years of his life. He seldom drank any thing between his meals. He was intoxicated but twice in his life, and that was when a boy, and at sea, where he remembered perfectly to have celebrated by a feu-de-joye, the birth-day of queen Anne. He was formerly afflicted with the head-ach, and giddiness, but never had a fever, except from the small-pox, in the course of his life. His pulse was slow but regular. He had been twice married. By his first wife he had eight, and by his second, seventeen children. One of them lived to be eighty-three years of age. He was about five feet nine inches in height, of a slender make, and carried an erect head to the last year of his life.

urine, become acrid by age, and thereby supply, by a more dissolving power, the defect of mastication from the loss of teeth? Analogies might easily be adduced from several operations of nature that go forward in the animal œconomy, which render this supposition highly probable.

I have not observed baldness, or grey hairs, occurring in early or middle life to prevent old age. In one of the histories furnished by Dr. Sayre, I find an account of a man of 80, whose hair began to assume a silver colour when he was only eleven years of age. Notwithstanding there appears in the human body a certain capacity of long life, which seems to dispose of it to preserve its existence in every situation, yet this capacity does not always protect it from premature destruction; for, among the old people whom I examined, I scarcely met with one who had not lost brothers or sisters in early and middle life, and who were born under circumstances equally favourable to longevity with themselves.

Let us now take a retrospective view of man's life from his infancy, and enumerate the chief of these different causes. Of a thousand infants, extracted from the London bills of mortality, twenty-three died almost as soon as they came into the world: teething carried off fifty, and convulsions two hundred and seventy-seven: eighty died of the small-pox, and seven of the measles. Among the adult females, eight at least died in child-bed: consumption and asthma, diseases more frequent in England than in France, carried off an hundred and ninety-one of the same sex, and almost a fifth part of the full-grown men. An hundred and fifty died of fevers. At a more advanced age, twelve died of apoplexy, and forty-one of dropsy, without mentioning those to whom diseases of little importance in themselves became mortal. There only remained seventy-eight whose death could be ascribed to old age; and of these twenty-seven lived to the age of eighty

eighty and upwards. Among the different diseases of which we have now seen the fatal effects, and which carry off more than nine-tenths of mankind, not one, it must be allowed, is natural to the constitution. The inhabitants of this island are in general but little subject to diseases, excepting the small-pox and the measles; and many of them enjoy uninterrupted health to old age.---And here it may be proper to mention what are the most prevalent diseases in other countries, which prove equally fatal to the duration of human life. In northern climates, scurvy, the cholic of the Laplanders, and diseases of the lungs, most frequently occasion death. In temperate climates, dropsy carries off a great many at the beginning of old age, which is the boundary of life in the greatest part of both sexes, when they have escaped the acute diseases, such as putrid fever, &c. Acute diseases are most common in warm countries. In some places, the rays of the sun kill in a few hours those who are exposed to its burning heat. The air of Egypt and of Asia Minor engenders the plague, by which one half of the inhabitants are carried off. Between the tropics men are subject to dysenteries and violent fevers. The cold of the night, in warm climates, occasions sometimes violent diseases, such as palsy, quinsy, and a swelling of the head. Damp and marshy places give rise to fevers of a different kind, but also very dangerous. The life of sailors has a great tendency to produce scurvy. How many professions prove fatal to the health, and in most men hasten that period which nature would have brought on by slow degrees! Miners, stone-cutters, gilders, persons employed in emptying privies, &c. are subject to diseases of the lungs, and become paralytic. Other professions bring on other accidents, of which it would carry us too far to give a particular account. What has been said is sufficient to shew, that it is the dangers with which we are surrounded that shorten the period of human existence.

By examining the list of those who have attained a great age, it will be found that mankind are longer lived in northern than southern countries. It has been observed, that there are more old men in mountaineous and elevated situations, than in plains and low countries. We repeat it, if the duration of life among the inhabitants of southern climates be compared with the duration of life in northern nations, it will be allowed, that the latter enjoy both longer life and better health than the former. Their growth being retarded by the rigour of the climate, their decay must also be slower, because of the proportion which exists between the growth of animals and the length of their lives. Among ten persons who have lived to the age of an hundred, eight or nine will be found to have lived in the north.

It appears from the bills of mortality, that in the country more boys are born than girls; in cities on the contrary, the number of females is commonly greatest. Observations made with great care prove, that in most countries there are fewer men alive than women, and that more males die, chiefly at the first and last periods of life. In Sweden, the whole number of females, in 1763, was to that of males in the proportion of ten to nine. The number of old women who exceeded eighty years of age was to that of old men of the same age in the proportion of thirty-three to nineteen: and there were more women than men who had attained the age of eighty-six, in the proportion of almost two to one.

The late Dr. Price made observations, after Dr. Percival, on the difference of longevity, and the duration of human life, in towns, country parishes, and villages; of which the following is the result: a greater number in proportion die in great towns than in small ones, and a greater number in the latter than in villages. The cause of this difference, which is found to be very great, must be, in the first place, the luxury
and

and dissipation which prevail in towns; and, secondly, the badness of the air. In the town of Manchester, according to observation, 1-28th of the inhabitants die annually; whereas, in the neighbouring country, the number of deaths does not exceed 1-46th of the whole inhabitants. It may be laid down as a general principle, that in great towns, the number of deaths annually is from one in nineteen to one in twenty-two or twenty-three; in middling towns, from one in twenty-four to one in twenty-eight; and in country parishes and villages seldom more than one in forty or fifty. In 1763, the number of inhabitants in Stockholm amounted to seventy-two thousand nine hundred and seventy-nine. The average number of deaths for the six years preceding had been three thousand eight hundred and two, which makes one in nineteen annually; while throughout all Sweden, including the towns and the country, not more than one in thirty-five die annually. At Rome the inhabitants are numbered every year. In 1771 they were found to amount to one hundred and fifty-nine thousand six hundred and seventy-five: the average number of deaths for ten years was seven thousand three hundred and sixty-seven: which makes one in twenty-three and a half annually. In London not less than one in twenty three-fourths of the inhabitants die every year.

M. Daubenton has given, in the *Encyclopédie Méthodique*, a table of the probabilities of the duration of life, constructed from that which is to be found in the seventh volume of the *Supplémens à l'Histoire Naturelle de M. de Buffon*.

The following is an abridgement of it:

Of twenty-three thousand nine hundred and ninety-four children, born at the same time, there will probably die,

In one year - - - 7998

Remaining 2-3ds, or 15996.

In

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In eight years	-	11997
Remaining 1-half, or 11997.		
In thirty-eight years	-	15996
Remaining 1-3d, or 7998.		
In fifty years	-	17994
Remaining 1-4th, or 5998.		
In sixty-one years	-	19995
Remaining 1-6th, or 3999.		
In seventy years	-	21595
Remaining 1-10th, or 2399.		
In eighty years	-	22395
Remaining 1-40th, or 599.		
In ninety years	-	23914
Remaining 1-300th, or 79.		
In one hundred years	-	23992
Remaining 1-10000th, or 2.		

It thus appears, that a very small number of men indeed pass through all the periods of life, and arrive at the goal marked out by nature. Innumerable causes accelerate our dissolution. The life of man, we have observed, consists in the activity and exercise of his organs, which grow up and acquire strength during infancy, adolescence, and youth. No sooner has the body attained its utmost perfection, than it begins to decline. Its decay is at first imperceptible: but in the progress of time the membranes become cartilaginous, the cartilages acquire the consistence of bone; the bones become more solid, and all the fibres are hardened. Almost all the fat wastes away; the skin becomes withered and scaly; wrinkles are gradually formed; the hair grows white; the teeth fall out; the face loses its shape; the body is bent; and the colour and consistence of the chrySTALLINE humour become more perceptible. The first traces of this decay begin to be perceived at the age of forty, and sometimes sooner; this is the *age of decline*. They increase by slow degrees till sixty, which is the *period of old age*. They increase more rapidly till the age of seventy or seventy-five

five. At this period *craziness* begins, and continues always to increase. Next succeeds *decrepitude*, when the memory is gone, the use of the senses lost, the strength totally annihilated, the organs worn out, and the functions of the body almost destroyed. Little now remains to be lost; and, before the age of ninety or an hundred, death terminates at once decrepitude and life.

The body then dies by little and little; its motion gradually diminishes; life is extinguished by successive gradations, and death is only the last term in the succession. When the motion of the heart, which continues longest, ceases, man has then breathed his last; he has passed from the state of life to the state of death; and, as at his birth a breath opened to him the career of life, so with a breath he finishes his course.

This natural cause of death is common to all animals, and even to vegetables. We may observe that the centre of an oak first perishes and falls into the dust, because these parts having become harder and more compact can receive no farther nourishment. The causes of our dissolution, therefore, are as necessary as death is inevitable; and it is no more in our power to retard this fatal term than to alter the established laws of the universe. Hence the following maxim has been universally adopted, *Contra vim mortis, nullum medicamentum in hortis*. In whatever manner death happens, the time and circumstances thereof are unknown. It is considered, however, as at all times terrible, and the very thoughts of it fill the mind with fear and trouble. It is notwithstanding our duty frequently to direct our thoughts to that event, which must inevitably happen, and by a life of virtue and innocence to prepare against those consequences which we so much dread.

As in women the bones, the cartilages, the muscles, and every other part of the body, are softer and less solid

lid than those of men, they must require more time in hardening to that degree which occasions death.--- Women of course ought to live longer than men. This reasoning is confirmed by experience; for by consulting the bills of mortality, it appears, that after women have passed a certain age they live much longer than men who have arrived at the same age.---In like manner, it is found by experience, that in women the age of youth is shorter and happier than in men, but that the period of old age is longer, and attended with more trouble. *Citius pubescunt citius senescunt.*

After death, the organization of the body begins to be dissolved, and all the parts relax, corrupt, and separate. This is produced by an intestine fermentation, which occasions putrefaction, and reduces the body to volatile alkali, fetid oil, and earth.

The desire of self-preservation, and of protracting the short span of life, is so intimately interwoven with our constitution, that it is justly esteemed one of the first principles of our nature, and, in spite even of pain and misery, seldom quits us to the last moments of our existence. It seems, therefore, to be no less our duty than our interest to examine minutely into the various means that have been considered as conducive to health and long life; and, if possible, to distinguish such circumstances as are essential to that great end, from those which are merely accidental.

It has long been known that fresh air is more immediately necessary to life than food; for a man may live two or three days without the latter, but not many minutes without the former. The vivifying principle contained in the atmosphere, so essential to the support of flame, as well as animal life, concerning which authors have proposed so many conjectures, is nothing else but that pure dephlogisticated fluid lately discovered by that ingenious philosopher, Dr. Priestley. The common atmosphere may well be supposed to be more or less healthy in proportion as it abounds

with this animating principle. As this exhales in copious streams from the green leaves of all kinds of vegetables, even from those of the most poisonous kind, may we not, in some measure, account why instances of longevity are so much more frequent in the country than in large cities; where the air, instead of partaking so largely of this salutary impregnation, is daily contaminated with noxious animal effluvia and phlogiston?

With respect to climate, various observations conspire to prove, that those regions which lie within the temperate zones are best calculated to promote long life. Hence, perhaps, may be explained why Italy has produced so many long livers, and why islands in general are more salutary than continents; of which Bermudas and some others afford examples. And it is a pleasing circumstance that our own island appears to contain far more instances of longevity than could well be imagined. The ingenious Mr. Whitehurst assures us, from certain facts, that Englishmen are in general longer lived than North Americans; and that a British constitution will last longer, even in that climate, than a native one. But it must be allowed in general, that the human constitution is adapted to the peculiar state and temperature of each respective climate, so that no part of the habitable globe can scarcely be pronounced too hot or too cold for its inhabitants. Yet, in order to promote a friendly intercourse between the most remote regions, the Author of Nature has wisely enabled the inhabitants to endure great and surprising changes of temperature, without material injury.

Though foods and drink of the most simple kinds are allowed to be the best calculated for supporting the body in health, yet it can hardly be doubted but variety may be safely indulged occasionally, provided men would restrain their appetites within the bounds of temperance; for bountiful Nature cannot be supposed

posed to have poured forth such a rich profusion of provisions, merely to tantalize the human species, without attributing to her the part of a cruel step-dame, instead of that of the kind and indulgent parent. Besides, we find, that, by the wonderful powers of the digestive organs, a variety of animal and vegetable substances, of very discordant principles, are happily assimilated into one bland homogeneous chyle; therefore it seems natural to distrust those cynical writers, who would rigidly confine mankind to one simple dish, and their drink to the mere water of the brook. Nature, it is true, has pointed out that mild insipid fluid as the universal diluent, and therefore most admirably adapted for our daily beverage. But experience has equally proved, that vinous and spirituous liquors, on certain occasions, are no less salutary and beneficial, whether it be to support strength against sickness or bodily fatigue, or to exhilarate the mind under the pressure of heavy misfortunes. But, alas! what Nature meant for innocent and useful cordials, to be used only occasionally, and according to the direction of reason, custom and caprice have, by degrees, rendered habitual to the human frame, and liable to the most enormous and destructive abuses. Hence it may be justly doubted, whether gluttony and intemperance have not depopulated the world more than even the sword, pestilence, and famine. True, therefore, is the old maxim, "*Modus utendi ex veneno facit medicamentum, ex medicamento venenum.*"

It is allowed on all hands, that alternate motion and rest, and sleep and watching, are necessary conditions to health and longevity; and that they ought to be adapted to age, temperament, constitution, temperature of the climate, &c. but the errors which mankind daily commit in these respects become a fruitful source of diseases. While some are bloated and relaxed with ease and indolence, others are emaciated, and become rigid, through hard labour, watching,
and

and fatigue.---Where the animal functions are duly performed, the secretions go on regularly; and the different evacuations so exactly correspond to the quantity of aliment taken in, in a given time, that the body is found to return daily to nearly the same weight. If any particular evacuation happen to be preternaturally diminished, some other evacuation is proportionably augmented, and the equilibrium is commonly preserved; but continued irregularities, in these important functions, cannot but terminate in disease.

---The due regulation of the passions, perhaps, contributes more to health and longevity than that of any other of the non-naturals. The animating passions, such as joy, hope, love, &c. when kept within proper bounds, gently excite the nervous influence, promote an equable circulation, and are highly conducive to health; while the depressing affections, such as fear, grief, and despair, produce the contrary effect, and lay the foundation of the most formidable diseases.

From the light which history affords us, as well as from the foregoing list of long lives, there is great reason to believe, that longevity is in some measure hereditary; and that healthy long-lived parents would commonly transmit the same to their children, were it not for intemperance, and the frequent errors in medical advice, which so evidently tend to the abbreviation of human life.---Where is it, but from these causes, and the unnatural modes of living, that, of all the children which are born in the capital cities of Europe, nearly one half die in early infancy! To what else can we attribute this extraordinary mortality? Such an amazing proportion of premature deaths is a circumstance unheard of among savage nations, or among the young of other animals! In the earliest ages, we are informed, that human life was protracted to a very extraordinary length; yet how few persons, in these latter times, arrive at that period which nature seems to have designed! Man is by nature a field-

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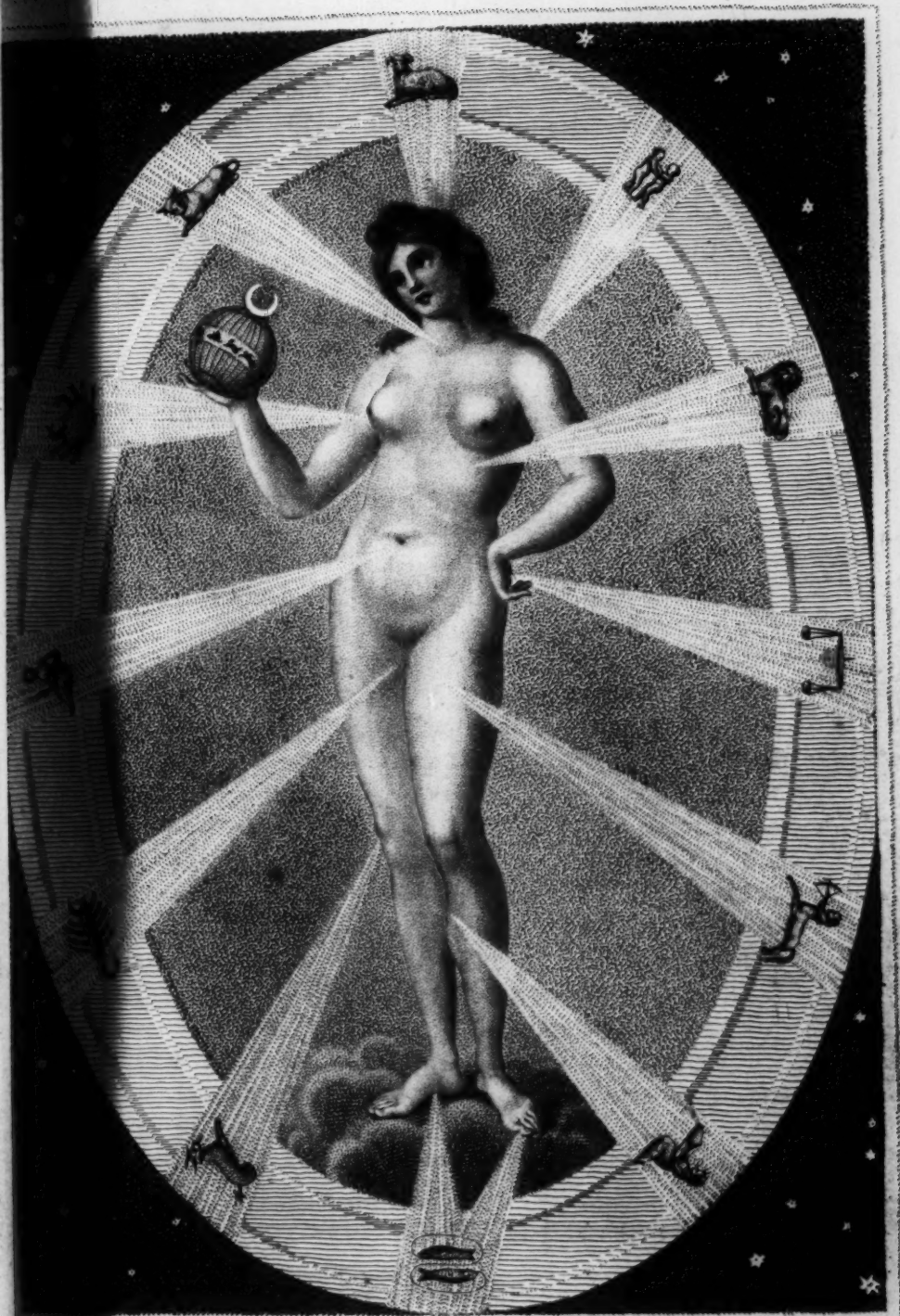
animal,

animal, and seems destined to rise with the sun, and to spend a large portion of his time in the open air, to inure his body to robust exercises and the inclemency of the seasons, and to make a plain homely repast only when hunger dictates. But art has studiously defeated the kind intentions of nature; and by enslaving him to all the blandishments of sense, has left him, alas! an easy victim to folly and caprice.

FORMATION OF WOMAN.

WHEN God created Adam, he planted in him the seeds of that Divine Essence, requisite to propagate the human *life* and *soul*. Theologists may contradict me; yet I will not so much derogate from the wisdom and omnipotence of the Creator, as to suppose he should watch the impregnation of every human female, and, by so many separate and distinct acts of his power, give life, spirit, and soul, to the foetus. The Creator of Man, viewing with unbounded foresight the purposes before him, by one act of his omnipotence blended in Adam all the faculties of the human and celestial nature; and, without any doubt, when he was formed *one*, in God's express *image*, he possessed the means of propagating, from his own essence, beings like himself. It is here difficult to associate the imperfect ideas of human reason with the mechanism of Divine Wisdom; and yet our conceptions may in some degree unravel the mysteries of nature by causes and speculations, which, in proportion as they captivate our senses and raise our admiration, excite in us a reverential awe of futurity, and a grateful sensibility of the goodness and mercy of Him who gave us being.

This is by no means a new hypothesis. Many authors of great learning have written on the subject; and from one of the most eminent I have selected the following



J. Pao, sculp.

For Contemplation, **HE**, and Valour form'd;
For Softness, **SHE**, and sweet attractive grace?



following extract: "God," says this author, "represented to my mind the beauty of the first world, and the manner in which he had drawn it from the chaos: every thing was bright, transparent, and darted forth light and ineffable glory. The body of Adam was purer and more transparent than crystal, and vastly fleet; through this body were seen vessels and rivulets of light, which penetrated from the inward to the outward parts, through all his pores. In some vessels ran fluids of all kinds and colours, vastly bright, and quite diaphanous. The most ravishing harmony arose from every motion; and nothing resisted, nor could annoy, him. His stature was taller than the present race of men; his hair was short, curled, and of a colour inclining to black; his upper lip covered with short hair: and instead of the parts which modesty will not allow us to name, he was fashioned as our bodies will be in the life eternal, which I know not whether I dare reveal. In that *region* was diffused the most delicious fragrancy and perfumes; whence also men were to issue, all whose principles were inherent in him; there being in the genital system a vessel, where little eggs were formed; and a second vessel filled with a fluid, which impregnated those eggs: and, when man heated himself in the love of God, the desire he had that other creatures should exist besides himself caused the fluid above mentioned to drop on one or more of these eggs with inexpressible delight; which, being thus impregnated, issued, some time after, out of man, by this canal, in the shape of an egg, whence a perfect man emerged by insensible degrees. Woman was formed by taking out of Adam's side the vessel that contained the eggs; which she still possesses, as is discovered by anatomists."

From the evidence of scripture it is indisputably clear, that in the person of Adam the male and female properties were originally combined, as indeed we
now

now find them in many of the lower class of animals. In Genesis i. 27, we read, that *God created man in his own image*, i. e. in perfection; including or containing the prolific or generating powers, which are distinguished by the expression of *male and female*; and *God blessed them*, i. e. these male and female properties, and *said unto them, Increase and multiply, and replenish the earth*, i. e. with beings like Adam; for this benediction, and this command, were *antecedent* to the formation of Eve, as every one must know who reads the scripture.

In this plural capacity, therefore, Adam received the blessing of God, when he said unto him, *Be fruitful and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, &c.* The six days creation were now completed; and on the seventh day God rested from all his work; and having formed Adam, and breathed into his nostrils the breath of life, *he became a living soul*. God also planted the garden of Eden, and put the *man* into it, to till it and dress it; and God commanded the *man*, saying, "Of every tree of the garden thou mayest freely eat; but of the tree of the knowledge of good and evil, thou shalt not eat of it; for in the day that thou eatest thereof *thou shalt surely die.*" Gen. ii. 17.

Let it be here noted, that all these transactions, injunctions, and commands, had passed *before Eve was formed*, or, in other words, before the male and female essences were separated and made the essential parts of two distinct persons. Adam likewise, before this event took place, was appointed God's viceroy over all earthly things, both animate and inanimate; the very elements being made subject to him; for "*he was formed more noble than the angels, and crowned with glory and honour*;" i. e. having the peculiar advantage of *multiplying his own race*. He was, as to his external form, moulded of the celestial æther; and there-

fore, previous to his fall, his body emanated rays of brightness and splendour similar to those which our ideas furnish of Moses and Elias when they conversed with God. His reasoning faculty, and *living soul*, were formed of the *eternal* essence or tincture of the Divinity; being nothing less than what is termed the *breath of God*, that spark of immortality which generates the *soul*, and is the distinguishing characteristic between man and beast. For, although brute animals inherit the five senses, and possess an instinct to direct them in the choice of food, and to impel the propagation of their species; yet these are only senses formed from the *out-birth*, or four elements of nature; and not from the *essence* or *tincture* of the Divinity, out of which the soul, the mental intellect, reason, sense, and understanding, are all formed, and transferred to posterity: "*For with the powers God has ENDUED man, with the same powers shall he multiply his race.*"

From the foregoing passages we are warranted to infer, that the original man was possessed of his spiritual soul, and rational intellect, for the purpose of propagating the same to future generations. By the force of this rational intellect, or eternal spirit, unclouded by the deformity of sin, he knew and perceived the nature and property of every animated being; and to exercise this intellect, God brought before him every created thing, to see what he would call them; "*and whatsoever Adam called them, that was the name thereof.*" He knew and perceived the nature of all animals; and, according to their designation and subjection to the external elements, so he assigned them those names which they have ever since borne. Adam, however, in his primeval state, was not himself under the influence of celestial or terrestrial elements; but, on the contrary, they were subject to his controul. He was immortal; they corruptible. They sprang out of time, and were elementated; and he sprang from the *limbus* of Eternity; and into eternity the divine

vine essence or souls propagated from him must indifputably return.

But man, thus created in honour and immortality, abideth not. The purpose of his creation was to fill the place of the rebel angels; and hence Lucifer became his mortal foe. This fallen spirit had entered the gate of Eden, and was preparing to seduce Adam, when the Almighty constituted the test of his obedience; for having endowed him with a *free-will*, an innate power of choosing *good* or *evil*, and of multiplying the same, it was but reasonable to expect from him an implicit obedience, and an angelic race. He, that is alone eternal and omnipotent, could not but foresee the subsequent event; and it is his supreme goodness to counteract evil, by preventing its worst consequences. Foreseeing that the prolific tincture, or eternal essence of fecundation, might be contaminated by the malignant spirit of Lucifer, infusing itself into the mind of Adam; who then, instead of multiplying an angelic race, would generate devils; and that, were man to fall in his individual capacity, there was no counter-part, no feminine principle, through the medium of which the *serpent's head could be bruised*, or a Saviour become incarnate:---therefore on a further survey, after the works of creation had been completed, animals named, and man formed and compounded of the male and female tinctures, God said, Gen. ii. 18. *It is not good that the man should be alone; I will make him an help meet for him*, wherefore the rib, i. e. the *feminine* or *conceptive* essence, was taken out of Adam, and concentrated or moulded into a new being, called *woman*. The emission of this feminine essence or tincture threw Adam into a deep sleep; yet, when he awoke, he knew that an essential principle had departed from him, and that the woman was *bone of his bone, and flesh of his flesh*, not having been created, *but formed out of himself*, whereby he only retained the animating principle, or active power of genera-

generation; whilst the rudiments or seeds of future beings were consigned to the matrix of the woman. Here then *individual* generation ceased; and Adam, without the *counter-part of himself*, had no longer the power to encrease and multiply. Thus the two tinctures, or divine essences, animating and compounding soul and body, were divided; and by means only of a re-union or contact of those tinctures, could generation then, *or now*, be performed. It is on this ground that the male and female affections are continually turned towards each other; and that the desire of love and union so strongly pervades every individual of the human race. Hence also the Tempter's reason for beguiling Eve, and hence the seducing power of love, which determined Adam to share in all the horrors of her crime, so pathetically and affectingly described by Milton.

The fatal consequences of the fall, we most sensibly feel, and universally deplore. The earth shook from its foundations. The order of nature was quite inverted. The ætherial and terrestrial elements, which before were fashioned in harmony, and acted in unison, were now discordant, intemperate, and furious. Brute preyed upon brute, and bird invaded bird. The delicious fruits and flowers of Paradise, were exchanged for thorns and thistles. The serenity of a pellucid and smiling firmament was convulsed by the thunders of an incensed Deity, by forked lightnings, by contending seasons, by devouring winds, and impetuous storms. While man, ungrateful man, from the privilege of holding these elements in subjection, became subjected to them; and hence subject to all the perils and misfortunes of his fallen nature.

Here, then, began the conflict of the human passions, as violent and ungovernable as the elements themselves. Here the toil and labour of the man, who should *earn his bread by the sweat of his brow*, and the tears and travail of the woman, who should

conceive in pain and sorrow, had each their source. Here likewise, the dark catalogue of human infirmities, of disease, and death, had its too early date yet to this æra, which gave birth to our manifold misfortunes, must we look for that benign source of alleviation and cure, which the relenting hand of Providence has graciously afforded to those who will seek for them; *for out of the ground hath the Lord caused medicine to grow; and he that is wise will not despise them; for with such doth he heal men, and taketh away their pains.* Eccl. xxxviii. 4, 7.

Since, by his fall, man became subject to the elements, from them he receives the constitution of his body; but his reasoning intellect, and spiritual soul, are derived from the pure essence or tincture of the Deity, originally infused into the seed of Adam. To the violence and impurity of the elements, we owe the disorders of the body; to the temptations and allurements of the devil, we justly impute the diseases of the soul. Yet, by due attention to our reasoning faculty, it is no hard task to preserve health, or prolong life, to the term of its *natural* dissolution; while, by the powers of the mind, and the light of the gospel, we may still avoid the poison of sin, and become members of that eternal kingdom, which is the sure reward of the good and virtuous.

The imperfections and diseases of the body, therefore, beginning with Adam, are in consequence transmitted to his posterity; and may be divided into *hereditary* and *accidental*. Hereditary complaints proceed from a certain defect of the animal powers, or imperfect state of the sanguiferous system, at the time of copulation. The accidental consist of all such maladies as are communicated by the discordant or putrid state of the elements, not only during the time the child is encompassed in the womb, but from its birth, to the latest hour of its existence. And it might here be observed, that the increase or decrease of both hereditary

editary and accidental diseases, depends almost entirely on the *purity*, or *impurity*, of the blood. For if pure, in both male and female, at the time of impregnation, the foetus will be naturally strong and healthful. So likewise, if after parturition, and during life, care be taken to keep the blood in an uncontaminated and elastic state, we shall not only prevent the common effects of excessive cold, heat, and moisture, but avoid likewise that direful train of acute diseases communicated by putridity and infection; or, should they by chance attack us, their effect becomes slight and temporary. A circumstance this, which surely ought to weigh perpetually on the minds of those, who know how to value the blessing of health, or who would wish to live a long, an active, and a pleasant, life.

OF THE DIFFERENCES IN SHAPE, COLOUR, STATURE, AND MANNERS, OF THE HUMAN SPECIES.

WHEN we survey the remote regions of the universe, and behold human beings so variously formed, so distinct, and so different from each other; yet all confessedly derived from the same original parent; it naturally excites our curiosity, and sets our thoughts on the wing, to discover the ground of so surprising a phenomenon. Were we to follow the observations and opinions of only half the authors who have written on the subject, we should greatly exceed the limits of our plan. Suffice it, therefore, that in order to describe this abundant variety of our species, and to account for the difference in shape, colour, stature, and manners, we take a survey of the different quarters of the globe; treading in the footsteps of eminent and reputable voyagers and travellers; and elucidating our subject, as we pass along, with correct and beautiful

tiful copper-plate engravings of the most curious individuals of the savage race.

Lapland, and the northern coasts of Tartary, furnish a race of men of an uncouth figure, and small stature. Their countenances and manners are equally savage and ferocious. These men, who appear to be a degenerated species, are very numerous, and occupy vast regions. The Danish, Swedish, and Muscovite, Laplanders, the inhabitants of Nova Zembla, the Borandians, the Samoiedes, the northern Tartars, the Ostiacks of the Old Continent, and the Greenlanders and savages to the north of the Esquimaux Indians in the New Continent, appear to be all the same race, who have extended and multiplied along the coasts of the northern sea, in deserts, and under climates which could not be inhabited by polished nations. All these people have broad large faces, and flat noses. Their eyes are of a yellowish brown colour, inclining to black; their eye-lids extend towards the temples; their cheek-bones are very prominent; their mouths are large, and their lips thick and reflected; the under part of their face is narrow; they have a squeaking voice; the head is large, the hair black and smooth; and the skin is of a tawny or swarthy hue. Their size is diminutive; but, though meagre, their form is squat. Most of them are only four feet high; and their tallest men exceed not four feet and a half. This race is so different from all others, that it seems to constitute a distinct species; for, if there be among them any distinction, it arises only from a greater or less degree of deformity. The Borandians, for example, are still less than the Laplanders. The iris of their eyes is of the same colour; but the white is of a reddish yellow; their skin is more tawny; and their legs, instead of being slender, like those of the Laplanders, are very thick and shapeless. The Samoiedes are more squat than the Laplanders; their heads are larger; their noses are broader, and their complexion

plexion darker; their legs are shorter; their hair is longer, and their beards are more scanty. The skin of the Greenlander is more tawny than that of the other nations, being of a deep olive colour; and, it is said, that some of them are as black as the Æthiopians. Among all these people, the women are full as ugly as the men, whom they resemble so much, that the distinction is not easily perceived. The women of Greenland are very short; but their bodies are well proportioned. Their hair is blacker, and their skin softer, than those of the Samoiede females. Their breasts are so long and pliable, that they can suckle their children over their shoulders. Their nipples are black as jet, and their skin is of a very deep olive colour. Their visage is large; their eyes small, but black and lively; and their feet and hands are short. In every other respect, they resemble the Samoiede females. The savages north of the Esquimaux, and even in the northern parts of the island of Newfoundland, have a great resemblance to the Greenlanders. Like them their stature is small, their faces broad, and their noses flat; but their eyes are larger than those of the Laplander.

These people not only resemble each other in deformity, in smallness of stature, and in the colour of their eyes and hair, but also in their dispositions and manners: they are all equally gross, superstitious, and stupid. They cannot, it should appear, exist but in their own country, and in their own manner. To enable them to travel on the snow, they use skates made of fir-wood, about two ells long, and half a foot broad. These skates are raised before, with a hole in the middle for tying them firm on the foot. With these they run on the snow with such rapidity, that they easily overtake the swiftest animals. They carry with them a pole pointed with iron at one end, and rounded at the other. This pole serves to push them along, to direct their course, to preserve them
from

from falling, or stop their impetuosity, and to kill the animals they overtake. With these skates they descend the most frightful precipices, and climb the steepest and most rugged mountains. The skates used by the Samoiedes are shorter, and seldom exceed two feet in length. Among all these people, the women use skates as well as the men. They likewise employ the bow and cross-bow; and it is said, that the Muscovite Laplanders dart a javelin with so much force and dexterity, that, at the distance of thirty paces, they are certain of hitting a mark not larger than a crown-piece; and that, at the same distance, they will transfix a human body. They hunt the ermine, the lynx, the fox, and the martin, and barter their skins for brandy and tobacco. Their food consists principally of dried fish, and of the flesh of the rein-deer and bear. Their bread is composed of the pounded bones of fishes, mixed with the tender bark of the pine, or birch-tree. Most of them make no use of salt. Their usual drink is whale-oil, or water in which juniper berries have been infused. They seem to be in a perfect state of nature, without any idea of religion, or of a Supreme Being. They are mostly idolaters, and exceedingly superstitious. More gross than savages, they have neither courage, dignity, nor a sense of shame. The manners of these abject people serve only to render them despicable. They bathe naked, and promiscuously, boys and girls, mothers and sons, brothers and sisters, without feeling the smallest sense of impropriety. When they come out of the baths, which are extremely warm, they immediately plunge themselves into cold rivers. They offer their wives and daughters to strangers, and esteem it the highest affront if the offer be rejected. This custom is universal among the Samoiedes, the Borandians, the Laplanders, and the inhabitants of Greenland. In winter, the Laplanders clothe themselves with the skin of the rein-deer and, in summer, with the skins of birds. The

use of linen is unknown to them. The women of Nova Zembla pierce their noses and their ears, and decorate them with pendants of blue stone; and, to increase their charms, they draw blue streaks across their forehead and chin. Their husbands cut their beards into a round form, and wear no hair on the head. The Greenland women clothe themselves with the skin of the dog-fish. They likewise paint their faces blue and yellow, and wear pendants in their ears. They all live under ground, or in huts almost sunk below the surface, and covered with the bark of trees, or bones of fishes. It is a common practice them, during the winter, to make subterraneous communications from hut to hut, by which they can visit their neighbours without going abroad. A night, consisting of several months, obliges them to illuminate their dreary abodes with lamps, in which they burn the same whale-oil that serves them for drink. In summer they have hardly more ease than in winter; for they are obliged to live perpetually in a thick smoke. This is the only means they have hitherto contrived to guard themselves against the bite of the gnats, which are, perhaps, more numerous in this frozen country than in the Torrid Zone. Notwithstanding this melancholy and hard mode of living, they are seldom or ever sick, and all arrive at extreme old age. Even the old men are so vigorous, that it is difficult to distinguish them from the young. Blindness, which is very frequent among them, is the only malady to which they are subject. As their eyes are perpetually dazzled with the reflection of the snow in winter, autumn, and spring, and involved in smoke during summer, few of them retain their sight after they are advanced in years.

It is therefore apparent, that the Samoides, the Zemblians, the Borandian, the Laplanders, the Greenlanders, and the savages to the north of the Esquimaux, are the same race of men; because they resemble

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resemble one another in figure, in stature, in colour, in manners, and even in singularity of customs. The custom of offering their wives and daughters to strangers, and of being vain when the offer is accepted, may proceed from a sense of their own deformity, as well as that of their females, whom they are apt to think the more handsome, because they are not despised by strangers. At any rate, it is certain, that this practice is general among all these nations, though very distant from each other, and though separated by a great sea. We meet with it among the Crim Tartars, the Calmucs, and several other nations in Siberia and Tartary, who are almost equally ugly as the inhabitants of the more northern regions. In all China and Persia, where the women are beautiful, the men are remarkable for their jealousy.

In examining the different nations to that vast tract of land occupied by the Laplanders, we find no relation between them and the race last mentioned. The Ostiacks and Tongusians, who border on the Samoiedes on the south and south-east, are the only people who have any resemblance to them. The Samoiedes and Borandians have no similarity to the Russians. The Laplanders resemble not, in any manner, the Fins, the Goths, the Danes, or the Norwegians. The Greenlanders are totally different from the savages of Canada, who are large and well made; and, though the tribes differ from one another, yet none of them have any analogy to the Laplanders. The Ostiacks, however, seem to be a less ugly and a taller branch of the Samoiedes. They feed upon raw flesh and fish; they eat all kinds of animals without distinction; they prefer blood to water for their drink; like the Laplanders and Samoiedes, they are mostly idolaters; in a word, they appear to be the line which divides the Lapponian and Tartarian races; or, rather, the Laplanders, the Samoiedes, the Borandians, the Nova Zemblians, and perhaps the Greenlanders, and the

the dwarfs of North America, may be considered as Tartars reduced to the lowest degree of degeneracy. The Tongusians seem to be less degenerated than the Ostiacks; because the former, though sufficiently ugly, are taller, and better proportioned. The Samoiedes and Laplanders lie under the 68th or 69th degree of latitude, but the Ostiacks under the 60th.

What we have stated relates to such of the savage-tribes in these northern regions, whose customs and manners have not yet been softened by the labours of the missionaries sent to convert them; and it is curious to remark, that even in those parts of Lapland which are subject to Denmark and Sweden, where infinite pains have been taken to civilize and instruct the natives, that the Christian religion has not yet dispelled their natural ignorance and superstition. Even those who profess to be Christians, when they bury a corpse, put into the coffin an axe, a flint, and steel, a flask of brandy, some dried fish, and venison. With the axe the deceased is supposed to hew down the bushes or boughs that may obstruct his passage in the other world: the steel and flint are designed for striking a light, should he find himself in the dark at the day of judgment; and on the provision they think he may subsist during his journey.

The Muscovite Laplanders observe other ceremonies still more gross. They not only supply the deceased with money, on his own account, but likewise provide him with money for the porter of paradise, and a certificate by the priest, and directed to St. Peter, specifying, that the bearer had lived like a good Christian, and ought to be admitted into heaven. At the head of the coffin they place a little image of St. Nicholas, whom they have been taught to reverence in all parts of Muscovy, as a friend to the dead. Before the interment, the friends of the deceased kindle a fire of fir-boughs near the coffin, and express their sorrow in tears and lamentations. They walk in procession

cession several times round the body, demanding, in a whining-tone, the reason of his leaving them on earth. They ask, whether he was out of humour with his wife; whether he was in want of meat, drink, clothing, or other necessaries; and whether he had not succeeded in hunting and fishing? These, and other such interrogations, to which the defunct makes no reply, are intermingled with groans and hideous howlings; and, between whiles, the priest sprinkles the corpse and the mourners, alternately, with holy water. Finally, the body is conveyed to the place of interment on a sledge drawn by a rein-deer; and this, together with the clothes of the deceased, are left as the priest's perquisites. Three days after the burial, the kinsmen and friends of the defunct are invited to an entertainment, where they eat the flesh of the rein-deer which conveyed the corpse to the burying-ground.

The most honourable and heroic exploit among the civilized Laplanders, is that of killing a bear, whose flesh they account the greatest dainty on earth; and those heroes who kill them have the privilege of adorning their caps with a small plate of lead for every bear they kill. In war, however, these people are so remarkably pusillanimous and cowardly, that they could never be brought to face a field of battle. Gustavus Adolphus, king of Sweden, endeavoured to embody a regiment of Laplanders, but, after a deal of labour and expence, he was obliged to relinquish the project. This uncommon timidity, however, seems to be in respect of war only; for to many other species of danger they expose themselves with surprising intrepidity, whether in ascending or descending mountains and precipices with their snow-shoes, and in sledges, or in venturing amidst whirlpools and cataracts in little slender boats made of thin fir-boards, fastened only with thongs of leather, or sinews of wild-beasts, in which kind of expeditions it is not every veteran that would have the hardiness to follow.

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Their want of courage seems to be owing to their uncommon superstition, and consequent dread of futurity. This constantly leads them to blend the Christian and Pagan worship together, and keeps up their superstitious awe of the magical drum, which Scheffer, in his history of Lapland, mentions as their oracle, and describes as follows: This instrument is made of pine, or fir, split in the middle, and hollowed on the flat side where the drum is to be made. The hollow is of an oval figure; and is covered with a skin clean dressed, and painted with figures of various kinds, such as stars, suns and moons, animals and plants, and even countries, lakes, and rivers; and, of later days, since the preaching of Christianity among them, the acts and sufferings of our Saviour and his apostles are added among the rest. All these figures are separated by lines into three regions or clusters. There is, besides these parts of the drum, an index and a hammer. The index is a bundle of brass or iron rings, the biggest of which has a hole in its middle, and the smaller ones are hung to it. The hammer, or drum-stick, is made of the horn of a rein-deer; and with this they beat the drum so as to make these rings dance about, they being laid on the top for that purpose. In the motion of these rings upon the pictures figured on the drum, they fancy to themselves some prediction in regard to the things they inquire about, which are principally the three following: 1. What sacrifices will prove most likely to preserve them in a future state; 2. what success they shall have in their several occupations, as hunting, fishing, curing of diseases, and the like; and, 3. what is most to be dreaded from places remote from them. On these occasions they use several peculiar ceremonies, and place themselves in various odd postures as they beat the drum; which influences the rings to the one or the other side, and to come near to the one or the other set of figures. And, when they have done this, they have a method of calculating

culating a discovery, which they keep as a great secret, but which seems merely the business of the imagination in the superstitious diviner.

It is remarkable that civilization has had no better effect in any of the regions above described, where the inhabitants appear to have been descended from the same original stock. A colony was very early established in Greenland, churches were built, and a considerable commerce set on foot to and from Norway; when, all at once, every kind of correspondence was cut off, and all knowledge of the colony, and its fate, has ever since been buried in oblivion. This strange event has been attributed to many causes; but the most probable is, that the colony was exterminated by the interior savages, who had frequently harassed the settlement, and resembled in their garb and appearance the Esquimaux or Hudson's-Bay Indians, called *Schrellings*. Those who have since visited the spot, assert, that no traces of the colony are to be found, except a few cattle and sheep running wild about the country, and the ruins of some houses and villages, inhabited by cruel and barbarous savages, who kill and eat all strangers that fall in their way. They are said to bear a near resemblance to the Samoides and Laplanders in their persons, but are more gross and loathsome; they eat after their dogs without washing their dishes; devour the lice which devour them; and even lick the sweat, which they scrape off from their faces with their knives. The women wash themselves with their own urine, which they imagine makes the hair grow; and, in the winter-time, go out immediately after, to let the liquor freeze upon their skin. They will often eat their victuals off the dirty ground, without any vessel to hold them in; and devour rotten flesh with the greatest avidity. In times of scarcity they will subsist on pieces of old skin, reeds, sea-weeds, and a root called *tugloronet*, dressed with train-oil and fat. The dung of rein-deer taken from the

the intestines, the entrails of partridges, and all sorts of offals, are counted dainties among these savages; and of the scrapings of seal-skins they make delicate pancakes. They could not taste the provisions of the Danish settlers, without abhorrence; though they afterwards became extremely fond of bread and butter, but retain an aversion to tobacco and spirituous liquors; in which particular they differ from almost all savages on the face of the earth.

Notwithstanding the fate of the first settlers, some Danish missionaries have recently attempted to make profelytes of the inhabitants near the shores; but with very little success. They indeed seemed to pay great respect and deference to these pastors, and patiently hear them expound the truths of the Christian religion; but at the same time they listen with the most mortifying indifference, without being in the least influenced by what they have heard. They believe in the immortality of the soul, and the existence of a spirit, whom they call *Torngafuk*; but of whom they have formed the most ridiculous notions. The *Angekuts*, who are supposed to be his immediate ministers, differ concerning the principles of his existence; some affirming, that he is without form or shape: others, that he has the shape of a bear: others, that he has a large human body with only one arm; while others affirm, that he is no larger than a man's finger, with many other absurdities of a similar kind. They have also a peculiar kind of mythology, by which they believe all the elements to be full of spirits, from among which every one of their prophets is supplied with a familiar, which they name *Torngak*, and who is always ready when summoned to his assistance.

Among the Esquimaux, or country lying round Hudson's-Bay, the progress of civilization has been attended with rather better success. The laudable zeal of the Moravian clergy, in the year 1752, induced them to send missionaries to this country. They fixed
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on Nisbet's Harbour for their settlement; but after a short time they were cut off by the natives; part of them indeed made their escape, but the greatest number were sacrificed by the savages to their gods, and sustained the agonies of death in its most horrid forms. In 1764, under the protection of our government, another attempt was made. The missionaries were then well received by the Esquimaux, and we hear, from some very recent accounts, that the mission now goes on with success; but that the inhabitants of the northern mountains remain to this day in the most abject state of nature. Thus all accounts, both ancient and modern, tend to establish this obvious fact, that the whole race of savages inhabiting the immense territories above described are one race of people, descended from the same original stock, with no other variation than what is derived from the difference of latitude under which they live.

We shall now direct our enquiries to the race of Tartars, who occupy such immense regions in Asia. They spread over that vast tract of country extending from Russia to Kamtschatka, a space of eleven or twelve hundred leagues in length, by more than seven hundred and fifty in breadth, which is a territory above twenty times larger than the whole empire of France. The Tartars border with China, the kingdoms of Boutan, and of Alva, and the Mogul and Persian empires, as far as the Caspian Sea, on the north and west. They spread along the Wolga and the west coast of the Caspian, as far as Daghestan: they have penetrated to the north coast of the Black Sea, and have establishments in Crimea, in Little Tartary and Moldavia, and in the Ukraine. All these people, even in their youth, have large wrinkled foreheads; their noses are thick and short, and their eyes small and sunk: their cheek-bones are very high, and the lower part of their face remarkably narrow; their chin is long and prominent, and the upper jaw falls

in; the teeth are long, and distinct from each other; the eye-brows are thick, and cover the eyes: the face is flat; the skin is tawny or olive; and the hair is black. Their bodies are of a middle stature, but strong and robust. They have but little beard, and the hairs are disposed in tufts, like the beards of the Chinese. Their thighs are thick, and their legs short. The Kalmuc Tartars are the most deformed of this race. They are mostly wandering hordes, living in tents made of cloth or skins. They eat the flesh of horses, and of other animals, either raw, or softened by putrifying under their saddles, and likewise fish dried with the sun. Their common drink is mares milk fermented with the flour of millet. They all shave the head, except a little tuft which they allow to grow, in order to form two tresses, one of them to hang on each side of the face. The women, who are almost as ugly as the men, wear their hair, in which they fix little pieces of copper, and other ornaments of the same nature.

In most of these wandering tribes, few marks of religion, or of decency in their manners, are to be found. They live chiefly by plunder; and the Tartars of Daghestan, who border on civilized nations, have a great trade in slaves, whom they carry off by force, and then sell them to the Turks and Persians. Their wealth principally consists of horses, which are, perhaps, more numerous in Tartary than in any other country on the globe. These people live perpetually with their horses, and are continually occupied in training, dressing, and exercising, them. They manage them with such dexterity, that a stranger would imagine both creatures to be animated with the same mind. These horses not only obey the gentlest motions of the bridle, but they seem to know the very intention of their riders.

To learn the particular differences which subsist among the race of Tartars, we have only to compare the
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the descriptions given by travellers of their different tribes. We are informed by Tavernier, that the Kalmucs, who live in the neighbourhood of the Caspian Sea, between Muscovy and Great Tartary, are robust men, but ugly and deformed. Their faces are large and flat; their eyes small, and situated very wide asunder. Their noses are remarkably low, and their knees bend outward, and their legs inward. Professor Pallas says, The characteristic features of a Kalmuc, are the following: the interior angle of the eye is placed obliquely downwards towards the nose, and is acute and fleshy; the eye-brows are black, narrow, and much arched; the nose is of a structure quite singular, being generally flat and broken towards the forehead; the cheek-bone is high, the head and face very round; the eye is dark, the lips thick and fleshy, the chin short, and the teeth exceeding white, continuing so to old age; the ears are of an enormous size, standing out from the head. These characters are more or less visible in each individual; but the person that possesses them all in the highest degree is considered as the most beautifully formed.

People that lead a wandering life enjoy the bodily senses in the greatest perfection. The Kalmucs find the subtilty of their sense of smell very useful in their military expeditions, for by it they perceive at a distance the smoke of a fire or the smell of a camp. There are many of them who can tell by applying the nose to the hole of a fox, or any other quadruped, if the animal be within or not. They hear at a great distance the trampling of horses, the noise of an enemy, of a flock of sheep, or even of strayed cattle; they have only to stretch themselves on the ground, and to apply their ear close to the turf. But nothing is more astonishing than the acuteness of sight in most of the Kalmucs, and the extraordinary distance at which they often perceive very minute objects, such as the dust raised by cattle or horses, and this from places very
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little elevated; in immense level deserts, though the particular inequalities of the surface and the vapours which in fine weather are seen to undulate over the soil in great heats, considerably increase the difficulty. They are also accustomed to trace the print of a foot in these deserts by the sight alone. But their extreme dirtiness can neither be disguised nor justified, and proceeds more from their education, from the slovenliness attached to the profession of a herdsman, and from levity, than from laziness: for the Kalmuc women are indefatigable in whatever concerns domestic matters: and it is for this reason, as well as on the score of sensuality, that the Kirgisiens are eager to seize and carry them off, whenever a favourable opportunity presents itself.

After the Kalmucs, the Tartars of Daghestan hold the next rank in deformity. The Little Tartars, or those of Nogai, who live near the Black Sea, are not so ugly as the Kalmucs, though they have flat faces, and small eyes, and resemble the Kalmucs in their general figure. By their intercourse with the Circassians, the Moldavians, and other adjoining nations, this race of Tartars have, perhaps, lost a part of their original deformity. The Tartars of Siberia, though, like the Kalmucs, they have broad faces, short flat noses, and small eyes, and though their language be very different, there is still so great a similarity between them, that they ought to be regarded as the same race of people. The Tartars of Bratski are considered by Pere Avril as of the same race with the Kalmucs; and, in proportion as we advance eastward, and approach Independent Tartary, the features of the Tartars gradually soften; but the characters essential to their race are never obliterated. Lastly, the Mongou-Tartars, who conquered China, and were the most polished, though their features be less disagreeable, yet, like all the other tribes, they have small eyes, large flat faces, thin black or red beards, short sunk noses, and a tawny

complexion. The people of Thibet, and of the other southern provinces of Tartary, are also less deformed.

The Tartars of Crimea and of the province of Cuban, are of a middle stature; they have broad shoulders, narrow flanks, strong nervous limbs, black eyes, and a tawny complexion. The Tartars of Kergissi and Tcheremissi are smaller and more squat; they are grosser, and less agile; they have black eyes, a tawny hue, and faces still broader than the former. As these nations abound with slaves, both male and female, who are carried off from Russia and Poland; as their religion permits a plurality of wives and concubines; and as their sultans, murzas, or nobles, bring their wives from Circassia and Georgia, the children who spring from such alliances are less deformed, and whiter than those of the unmixed natives. There are even among the Tartars a whole nation, that of the Kabardiniki, who are remarkably beautiful. M. Sanchez asserts, that he noticed no less than three hundred of these men in the Russian service; and he assures us, that he never saw men make a more handsome figure. Their countenances were almost as fresh and white as any in Europe; they had large black eyes; and they were tall and well proportioned. He adds, that the lieutenant-general of Serapikin, who had lived long in Kabarda, informed him, that the women were equally handsome. But this nation, so totally different from the other Tartar tribes with which they are surrounded, are said to have come originally from the Ukraine, and had been transported into Kabarda about one hundred and fifty years ago.

The blood of the Tartars is intermixed on one side with the Chinese, and, on the other, with the oriental Russians. But the characteristic features of the race are not entirely obliterated by this mixture; for, among the Muscovites, the Tartarian aspect is very frequent; and, though the former have sprung from the common European race, we still find many individuals

duals with squat bodies, thick thighs, and short legs, like the Tartars. But the Chinese have so great a resemblance to the Tartars, that it is believed they are of the very same race: the most remarkable difference arises from a total disparity in their dispositions, manners, and customs. The Tartars are fierce, warlike, and fond of hunting. They love fatigue and independence; and they are hardy and brutally gross. But the manners of the Chinese are the very reverse. They are effeminate, peaceable, indolent, superstitious, submissive, ceremonious, and parasitical. In their features and form, however, they have a striking resemblance to the Tartars.

The Chinese are large and fat men, with well-proportioned limbs, round broad faces, small eyes, large eye-brows, prominent eye-lids, and small sunk noses. They have only seven or eight tufts of hair on each lip, and very little on the chin. Those who live in the southern provinces are browner and more tawny than those in the northern parts; and their colour resembles that of the people of Mauritania, or the more swarthy of the Spaniards: but, in the middle provinces, they are as white as the Germans. According to Dampier and others, they are not all large and fat, though they regard these properties as great ornaments to the human figure. Speaking of the inhabitants of the island of St. John, on the coast of China, Dampier informs us, that they are tall, erect, and not incumbered with fat; that they have a long visage and a high forehead; that their eyes are small, their nose pretty large and elevated in the middle, their mouth of a moderate size, their lips thin, their complexion ash-coloured, and their hair black; that they have naturally little beard; and that they pull out all the hairs, except a few on the chin and upper lip. According to Gentil, the Chinese have nothing disagreeable in their aspect, especially in the northern provinces: those, whom necessity exposes to the sun, in the southern

provinces, are tawny. In general, they have small oval eyes, short noses, and thick bodies of a middle stature. He assures us, that the women use every art to diminish their eyes; and that the young girls, instructed by their mothers, continually extend their eye-lids, in order to make their eyes small and oblong, which, when joined to a flat nose, and large, open, pendulous ears, constitute a perfect beauty. He adds, that their complexion is fine, their lips of a beautiful red, their mouths well-shaped, and their hair exceedingly black; but that the chewing of betle blackens their teeth, and their constant use of paint so greatly injures their skin, that they have the appearance of old age before they arrive at thirty years.

We are assured by Palafox, that the Chinese are whiter than the oriental Tartars; that they have also less beard; but that, in every other respect, there is little difference in the visages of these two nations. It is very uncommon, he says, to see blue eyes either in China or the Philippine Islands, except the Europeans, or those born of European parents.

It is alledged by Inigo Biervillas, that the women of China are better made than the men. The faces of the latter, he observes, are large, and their complexions yellowish; their noses are broad and compressed; and their bodies are thick and coarse, like those of Dutchmen: the women, on the contrary, are exceedingly handsome; their skin and complexion are admirably fine; and their eyes are extremely beautiful: but few of them, he adds, have good noses, because they are purposely compressed in their infancy.

Most of the Dutch voyagers agree, and are confirmed in opinion by M. Grosier, that the Chinese, in general, have broad faces, small eyes, flat noses, and hardly any beard; that the natives of Canton, and all along the southern coast, are as tawny as the inhabitants of Fez in Africa; but that those of the interior provinces are mostly white. Now, if we compare
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the descriptions of the Tartars and Chinese given by the different authors above quoted, we cannot hesitate in pronouncing, that the Chinese, though they differ a little in their stature, and in the form of their countenance, have a greater relation to the Tartars than to any other people, and that all the differences between them proceed entirely from climate and the mixture of races. This is the opinion of Chardin: "The size of the Little Tartars," he remarks, "is about four inches less than that of the Europeans; and they are thicker in the same proportion. Their complexion is copper-coloured; their faces are broad, flat, and square; their noses are compressed, and their eyes small. Now these are the exact features of the Chinese; for, after the most minute examination, during my travels, I found that all the people to the east and north of the Caspian Sea, and to the east of the Peninsula of Malacca, have the same configuration of face, and nearly the same stature. From this circumstance I was induced to think, that all these people, notwithstanding the varieties in their manners and complexions, sprung from the same source; for differences in colour proceed entirely from climate and the manner of living; and varieties in manners originate from the soil, and from the degrees of opulence enjoyed by different nations."

Father Parennin, who lived long in China, and accurately observed the manners of that people, informs us, that the neighbouring nations in the west, from Thibet northward to Chamo, differed from the Chinese in manners, language, features, and external conformation; that they are rude, ignorant, slothful people, faults very common among the inhabitants of China; that, when any of these Tartars come to Peking, and the Chinese are asked the reason of these differences, they answer that they are occasioned by the water and the soil; or, in other words, that the nature of the country produces these changes in the bodies

dies and dispositions of its inhabitants. He adds, that this remark seems to be more verified in China than in any other country he ever saw; and that, when following the emperor in a journey into Tartary, as far as the forty-eighth degree of north latitude, he found Chinese families from Nankin, who had settled there, whose children had become perfect Mongous, having their heads sunk between their shoulders, crooked legs, and an aspect that was truly gross and disgusting.

The Japanese are so very similar to the Chinese, that they may be regarded as the same race of men; their colour is indeed darker, because they live in a more southern climate. In general, their complexion is vigorous; their stature short; their face and nose broad and flat; their eyes small; their beard thin; and their hair black. They are haughty, warlike, full of vigour and dexterity, civil and obliging, smooth-tongued, and abound in compliments; but they are a vain and inconstant people. They sustain, with incredible patience, hunger, thirst, cold, heat, fatigue, and all the other hardships of life. Like the Chinese, they eat their meat with small sticks, and, during their meals, they use a multitude of ceremonies and grimaces. They are laborious, skilful artificers; and, in a word, their dispositions, manners, and customs, are nearly the same with those of the Chinese. Near two centuries ago, some Portuguese missionaries were sent into this country, and Christianity proceeded with the most rapid success; but ended at last in the most tragical manner, owing to the pride and haughtiness, the misconduct, rapacity, and extravagant conspiracy of the fathers against the state. This folly and madness produced a persecution of forty years duration, terminated by a most horrid and bloody massacre, not to be paralleled in history. After this the Portuguese, as likewise the Christian religion, were totally expelled the country, and the most effectual means taken for preventing their return. The natives are for this purpose

pose still prohibited from going out of the country; and all foreigners are excluded from an open and free trade; for as to the Dutch and Chinese, under which last name some other eastern nations go thither, they are shut up whilst they remain there, and a most strict watch is set upon them, insomuch, that they are no better than prisoners: and the Dutch, it is said, to obtain a privilege even so far, declared themselves *to be no Christians, but Dutchmen.*

The absurd custom of rendering the feet of their women so small that they can hardly support their bodies, is common to both these nations. Some travellers affirm, that, when the Chinese girls arrive at three years of age, their feet are bent in such a manner, that the toes lie under the sole; that they apply aquafortis to burn off the flesh: and then wrap them up in strong bandages. They add, that the women feel the consequences of this operation all their lives; for they walk with much difficulty, and their gait is exceedingly ungraceful. They chearfully submit, however, to this inconveniency; and, as it is thought graceful, they endeavour to make their feet as small as possible. Other travellers deny that they break the feet; and alledge, that they only compress them so forcibly as to prevent their growth; but all agree, that every woman of fashion, and every woman that is reckoned handsome, must have her feet so small, that they could enter, with ease, into the shoe of a child of six years of age.

We may therefore, upon the whole, conclude, that the Japanese and Chinese are the same race of people; that their civilization is of a very ancient date; and that they differ more from the Tartars in their manners than in their figure. Their early civilization may be ascribed to the fertility of the soil, the mildness of the climate, and the vicinity of the sea; while the Tartars, removed from the sea, and separated from the southern nations by high mountains, have continued

to wander in their vast deserts, and under a climate, the rigour of which, especially in the northern parts of Tartary, could only be supported by a robust and uncultivated people. The country of Jesso, which lies to the north of Japan, though situated under a climate which ought to be temperate, is, however, cold, barren, and mountainous: its inhabitants are also totally different from those of China and Japan. They are an uncultivated race, having neither religion nor arts. Their bodies are thick and short; their hair is long and bristly; their eyes are black; their forehead is flat, and their colour yellow, though less so than that of the Japanese. Their faces, as well as their whole body, are very hairy. They live like savages, and their food consists of the fat and oil of whales, and other fishes. They are exceedingly indolent, and slovenly in their dress. Their children go almost naked; and the women have invented no other ornament but that of painting their eye-brows and lips of a blue colour. The sole pleasure and occupation of the men is hunting bears and rein-deer, and fishing whales. Though they have some Japanese customs, as that of singing with a quavering voice, yet, in general, they have a greater resemblance to the northern Tartars, or the Samoiedes, than to the natives of Japan.

In examining the people on the south and west of China, we find that the Cochin-chinese, who inhabit a mountainous region that lies south of China, and bounded by the Indian ocean, are more tawny, and have worse features, than the Chinese; and that the Tonquinese, who live under a colder climate than the Cochin-chinese, are handsomer and better shaped. Dampier tells us, that the Tonquinese are of a middle stature: and that, though their complexion be tawny, their skin is so smooth and delicate, that the smallest changes from redness to paleness are perceptible in their faces, a circumstance which distinguishes them from the
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other Indians. Their visage is generally flat and oval, their nose and lips well proportioned, their hair black, long, and very thick; and they use every art to make their teeth black. According to the relation, annexed to Tavernier's voyages, the Tonquinese are of a good stature, and of an olive colour. Their faces and noses are not so flat as the Chinese; and they are, in general, handsomer.

The country of Cochin-china is much of the same temperature with that of Tonquin; the people have a great affinity with those of Tonquin, with whom they have a common origin, and from whom they differ very little in their manner of living, as well as their manners and customs, all of which they seem to have derived from the Chinese. M. le Poivre represents the Cochin-chinese as gentle, hospitable, frugal, and industrious. There is not a beggar in the country; and robbery and murder are absolutely unknown. A stranger may wander over the kingdom from one end to the other (the capital excepted) without meeting with the slightest insult. He will be every where received with the most eager curiosity, but, at the same time, with the greatest benevolence. A Cochin-chinese traveller, who has not money sufficient to defray his expences at an inn, enters the first house of the town or village he arrives at, and, waiting the hour of dinner, takes part with the family, and goes away when he thinks proper, without speaking a word, or any person's putting to him a single question. Their monarchs govern them as a father does his family, establishing no laws but those of nature. They honour and encourage agriculture, as the most useful employment of mankind. Every man, able to till the ground, pays to the prince a small sum proportioned to the strength of his constitution, and the vigour of his arm; and nothing more.

Thus, it appears, that these nations differ but little from the Chinese: in colour they resemble the inha-

bitants of the southern provinces of China. If they are more tawny, it is owing to their living under a warmer climate; and, though their faces and noses be more prominent, they may still be regarded as people sprung from the same origin.

The same observation is applicable to the natives of Siam, of Pegu, of Aracan, of Laos, &c. The features of all these nations have a striking resemblance to those of the Chinese; and, though they differ from the Chinese in colour, yet they differ much more from the other Indians. The stature of the Siamese, according to Loubere, is rather small; their bodies are well made; their faces are large, and their cheek-bones prominent; their forehead suddenly contracts, and terminates in a point, like the chin; their eyes are small and oblique; the white of the eye is yellowish; the cheeks are hollow, from the elevation of the upper part of the cheek-bones; the mouth is large, the lips thick, and the teeth black; their complexion is coarse, being a mixture of brown and red, or, according to other travellers, of an ash-colour, which is, perhaps, as much owing to the perpetual sultriness of the air as to their birth: their nose is short and rounded at the point; their ears are naturally large, and are much esteemed when their size is remarkably great. This taste for long ears is common to all the eastern nations. Some draw down the lobe of the ear in order to lengthen it, and pierce it so as only to allow the admission of an ordinary pendant; and others, as the natives of Laos, widen the holes in their ears so enormously, that they will almost admit a man's four-fingers, and, by this means, their ears descend nearly to the top of their shoulders. With regard to the Siamese, however, their ears are naturally larger than ours. Their hair is coarse, black, and straight; and it is worn so short, both by the men and women, that it reaches no lower than the ear all round the head. They anoint the lips with a kind of perfumed pomatum,

tum, which makes them appear unnaturally pale. They have little beard; and they always pull out the hairs: nor is it customary to pare their nails, &c. Struys informs us, that the women of Siam wear pendants in their ears so large and heavy, that the holes gradually grow wide enough to admit a thumb. He adds, that the colour of both men and women is tawny; that, though not tall, they are handsome; and that, in general, the Siamese are a mild and friendly people. Father Tachard remarks, that the Siamese are very alert, and have among them dancers and tumblers as agile as those in Europe. He tells us, that the custom of blackening their teeth proceeds from a notion they entertain of its being unseemly for men to have white teeth like the brutes. They besmear them with black varnish, and abstain three or four days from meat, in order to make it adhere the more firmly.

The inhabitants of the kingdoms of Pegu and Aracan differ not from those of China and Siam, except in their colour, which is a little blacker. The natives of Aracan, to the north-east of the bay of Bengal, are fond of large flat foreheads; and, to render them so, they apply a plate of lead to the foreheads of their children immediately after birth. They have large open nostrils, small sparkling eyes, and ears reaching almost to their shoulders. They eat, without disgust, mice, rats, serpents, and putrified fish. Their women are tolerably agreeable, though their ears are equally as long as those of the men. They pay little or no regard to the chastity of their women, and our common sailors take great liberties among them. Their religion is Paganism; and the idols, temples, and priests, are very numerous. The dress of the better sort is very slight, for it consists chiefly of a piece of thin white gauze over their arms, breasts, and belly, with a small apron before. They curl their hair, and put glass rings in their ears, and stretch them to a monstrous length. On their arms and legs they have

hoops of copper, ivory, silver, &c. Captain Hamilton affirms, that there are but few places inhabited in this country, on account of the great number of wild elephants and buffaloes, which destroy the fruits of the ground; and that the tigers destroy the tame animals. The rich burn the bodies of the dead; but the poor, who are not able to buy wood, throw them into the river, to prevent their being devoured by wild beasts.

All these nations, it is apparent, differ little from the Chinese, and resemble the Tartars in the smallness of their eyes, their flat visages, and their olive colour. But, in proceeding more to the southward, the features begin to be diversified in a more sensible manner. The inhabitants of Malacca, and of the island of Sumatra, are black, small, active, and well proportioned. Though naked from the middle upwards, except a small scarf which they carry sometimes on one shoulder and sometimes on the other, they are naturally brave, and become formidable after taking their opium, which affects them with a kind of furious intoxication. The generality of them are restless, fond of navigation, war, plunder, emigrations, colonies, desperate enterprizes, adventures, and gallantry. They talk incessantly of their honour and their bravery; whilst they are universally considered, by those with whom they have intercourse, as the most treacherous, ferocious people on earth. This ferocity, which the Malays qualify under the name of Courage, is so well known to the European companies who have settlements in the Indies, that they have universally agreed in prohibiting the captains of their ships who may put into the Malay islands, from taking on-board any seamen from that nation, except in the greatest distress, and then on no account to exceed two or three. It is not in the least uncommon for an handful of these horrid savages suddenly to embark, attack a vessel by surprise, massacre the people, and make themselves
master

master of her. The Malay batteaux, with twenty-four or thirty men, have been known to board European ships of thirty or forty guns, in order to take possession of them, and murder the crew. The inhabitants of Sumatra and Malacca, according to Dampier, are of the same race. They speak nearly the same language; they have all a fierce and haughty temper; their stature is of a middle size; they have a long visage, black eyes, noses of a moderate bulk, thin lips, and teeth dyed black by the frequent use of betle. In the island of Pugnatan, or Pissagan, about sixteen leagues west of Sumatra, the natives are tall, and of a yellow colour, like the Brasilians. They have long smooth hair, and go absolutely naked. Those of the island of Nicobar, to the north of Sumatra, are of a yellowish tawny complexion, and the interior inhabitants go perfectly naked. Those on the sea-coast, captain Hamilton observes, in his second volume of Asiatic Researches, are low in stature but very well made, and surprisingly active and strong; they are copper-coloured, and their features have a cast of the Malay; quite the reverse of elegant. The women in particular are extremely ugly. The men cut their hair short, and the women have their head shaved quite bare, and wear no covering but a short petticoat, made of a sort of a rush or dry grass, which reaches half-way down the thigh. This grass is not interwoven, but hangs round the person something like the thatching of a house. Such of them as have received presents of cloth petticoats from the ships, commonly tie them round immediately under the arms. The men wear nothing but a narrow strip of cloth about the middle, in which they wrap up their privities so tight, that there is hardly any appearance of them. The ears of both sexes are pierced when young; and by squeezing into the holes large plugs of wood, or hanging heavy weights of shells, they contrive to render them large, and disagreeable to look at. They are naturally disposed

posed to be good-humoured and gay, and are very fond of sitting at table with Europeans, where they eat every thing that is set before them; and they eat most enormously. They do not care much for wine, but will drink bumpers of arrack as long as they can see. A great part of their time is spent in feasting and dancing. The young men and women dance, and the old people surround them smoking tobacco and drinking *soura*, which is an intoxicating liquor, distilled from the cocoa-nut tree.

The natives of the island of Sombrero, to the north of Nicobar, are very black; and they paint their faces with different colours, as green, yellow, &c.---The people of Malacca, of Sumatra, and of the small adjacent islands, though they differ between themselves, differ still more from the Chinese, Tartars, &c. and seem to have originated from a different race; yet the natives of Java, who are in the neighbourhood of those of Sumatra and Malacca, have no resemblance to them, but are similar to the Chinese, except in colour, which, like that of the Malays, is red mingled with black. They likewise resemble, says Pigafetta, the natives of Brasil; their complexion is coarse, and, though neither remarkably large nor small, they are squat, and exceedingly muscular; their faces are flat, their cheeks flabby and pendulous; their eye-brows large, and inclined to the temples; their eyes small, and their beards very black and thin. Father Tachard remarks, that the people of Java are robust and handsome; that they seem to be active and resolute; and that the extreme heat of the climate obliges them to go mostly naked. From the *Lettres Edifiantes*, it appears, that the natives of Java are of a purplish red colour; and that they are mild, familiar, and courteous. Francis Legat relates, that the women of Java, who are not exposed to the rays of the sun, are less tawny than the men; that their countenance is comely, their breasts prominent and well shaped, and their complexion,

plexion, though brown, is uniform and pleasing; that they have a delicate hand, a soft air, brilliant eyes, an agreeable smile; and that many of them dance with great elegance and spirit. Most of the Dutch voyagers agree, that the natives of this island are robust, well made, and nervous; that their visage is flat, their cheeks broad and prominent, their eye-lids large, their eyes small, their hair long, and their complexion tawny; that they have little beard; that they wear their hair and nails very long; and that they polish their teeth with files. In a little island fronting that of Java, the women are tawny, have small eyes, a large mouth, flat noses, and long black hair. From all these relations, we may conclude, that the inhabitants of Java greatly resemble the Tartars and Chinese, while those of Malacca, Sumatra, and the small adjacent islands, differ from the Chinese, both in their features and in the form of their bodies. Neither is it difficult to account for this phenomenon; for the peninsula of Malacca, the islands of Sumatra and Java, as well as all the other islands in the Indian Archipelago, must have been peopled by the neighbouring nations on the continent, and even the Europeans themselves, particularly the Portuguese and Dutch, who have had possession of them near three centuries. This circumstance must have produced a great variety among the inhabitants, as well in the features and colour, as in the form and proportions of their bodies. In the island of Java, for example, there are a people called Chacrelas, who are totally different, not only from the natives of this island, but from all the other Indians. These Chacrelas are white and fair; their eyes are so weak, that they cannot support the rays of the sun. They go about, in the day, with their eyes half shut, and directed to the ground; but they see best during the night. All the inhabitants of the Molucca islands, says Pyrard, are similar to those of Sumatra and Java, in manners, mode of living, arms, customs,

customs, language, colour, &c. We learn from Mandelslo, that the men are rather black than tawny, and that the women are fairer; that their hair is black; that their eyes, eye-brows, and eye-lids, are large; that their bodies are strong and robust; that they are dexterous and agile; and that they live long, though their hair soon becomes hoary. This traveller likewise tells us, that each island has its own peculiar language, and that they have probably been peopled by different nations. The inhabitants of Borneo and of Bali, he adds, are rather black than tawny; but, according to other travellers, they are only brown, like the other Indians. Gemelli Carreri says, that the inhabitants of Ternate are of the same colour with the Malays, which is a little darker than those of the Philippine islands; that their countenances are comely; that the men are handsomer than the women; and that both sexes bestow much care on their hair. The natives of the island of Banda were nearly the same; but the Dutch, who are absolute masters of the settlement, finding them savage, cruel, treacherous, and totally averse to labour, have now almost exterminated them. According to Dampier, the original natives of the island of Timor, which is one of those most adjacent to New Holland, or Botany-bay, are of a middle stature: they have erect bodies, delicate limbs, a long visage, black bristly hair, and a very black skin: they are dexterous and agile, but indolent to a shameful degree. In another place, however, he says, that the inhabitants along the bay of Laphao are mostly tawny and of a copper colour, and that their hair is black and flat.

Turning northward, we find Manilla and the other Philippine islands, the inhabitants of which, by alliances formed between the Spaniards, the Indians, the Chinese, the Malabars, the Negroes, &c. are, perhaps, more mixed than those of any other part of the universe. Those Negroes, who live in the rocks and
woods

Woods of Manilla, are entirely different from the other inhabitants. Some of them have crisped hair, like the negroes of Angola, and others long hair; their colour consists of various shades of black. Among these, are the Tagalians or Tagaleze, the Pintadoes or painted negroes, the Ilayas or Tinglianos, and the Negrellos. The Tagalians, who are thought to be Malayans by descent, are a modest, tractable, and well disposed people. The Pintadoes, or painted negroes, are tall, straight, strong, active, and of an excellent disposition. The Tinglianos, whom some suppose to be descended from the Japanese, are very brave, yet very courteous and humane. They live entirely on the gifts of nature; and never sleep under any other shade than that of the trees or a cave. The Negrellos, who are held to be the Aborigines of the island, are barbarous and brutal to the last degree. When they kill a Spaniard, they make a cup of his skull and drink out of it. These savages are said to have tails four or five inches long, like the islanders mentioned by Ptolemy. This traveller adds, that he was informed by jesuits, worthy of credit, that, in the island of Mindora, which is adjacent to Manilla, there is also a race of men called Manghians, who have all tails of the same length; and that they had olive complexions and long hair. Dampier tell us, that the inhabitants of the island of Mindanao, which is one of the principal and most southerly of the Philippines, are of a middle stature; that their limbs are slender, their bodies thin and straight, their visages oval, their foreheads flat, their eyes black and small, their noses short, their mouths large, their lips thin and red, their teeth black, their hair smooth and black, their colour tawny and more yellow than several of the other Indian tribes; that the women are handsome, and fairer than the men; that their visage is longer, and their features sufficiently regular, except the nose, which is short and flat; that their limbs are small, and their hair

long and black; that the men, in general, are alert and ingenious, but, at the same time, slothful, and addicted to robbery. We learn from the *Lettres Edifiantes*, that the inhabitants of the Philippine Islands resemble the Malays, who formerly conquered these islands; that, like them, the nose is short, the eyes large, the complexion of a yellowish olive colour, and that their customs and language are nearly the same.

To the northward of Manilla lies the island of Formosa, which is not far distant from the province of Fokien in China, to which it is subject. But these islanders have no resemblance to the Chinese, nor was the existence of such a place known to them until the year 1430. Struys informs us, that the men of this island are of small stature, particularly those who live in the mountains; that they have flat faces; that the women have coarse full breasts, and a beard like the men; that their ears are long, and their length is increased by heavy shells which they wear for pendants; that their hair is black and long, and their complexion of a yellowish black colour; that some of them are of a whitish yellow, and others entirely yellow. These islanders, both men and women, run with such surprising swiftness, that they can almost outstrip the fleetest greyhound. The Chinese attribute this agility to the precaution they take of confining their knees and reins by a close bandage until the age of fourteen or fifteen. Their favourite arms are lances, which they dart to the distance of sixty or eighty feet with the greatest dexterity and precision. They use bows and arrows, and can kill a pheasant on wing with as much certainty as an European sportsman could with a fusée. These people are very dirty in their manner of eating. They eat flesh half raw: and, provided it has been only presented to the fire, it appears to them excellent. They go almost naked, and wear only a piece of cloth which hangs from the girdle to their knees. Those among them who, according to the judgment
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of the chiefs of the village, have borne away the prize for agility in running or dexterity in the chase, obtain the honourable privilege of making on their skin, by a very painful operation, several fantastical figures of flowers, shells, trees, and animals. All have the right of blackening their teeth, and of wearing ornaments of bracelets and crowns made of shells and crystal.

Struys, in his voyages, expressly declares, that, in this island, he saw a man with a tail a foot long, covered with reddish hair, and that, he was assured, this tail was a consequence of the climate, for all the natives of the southern part of the island had tails of the same kind. I know not what credit is due to this relation of Struys. If the fact concerning the tails be true, it must be exaggerated; for it accords not with the accounts of other travellers, nor even with that of Ptolemy; and Marc Paul, in his *Geographical Description*, says, that, in the mountains, and in the kingdom of Lambry, there are men with tails about a palm long only. It appears, that Struys rests upon the authority of Marc Paul, as Gemelli Carreri does upon that of Ptolemy; and that the tail he pretends to have seen is very different in its dimensions from that ascribed by other travellers to the negroes of Manilla, the inhabitants of Lambry, &c. The accounts of modern travellers, concerning the island of Formosa, make no mention of these extraordinary men; and I am inclined to believe that what he saw, was neither more nor less than the great baboon, which we shall hereafter describe.

The Dutch voyagers, in their accounts of the natives of Formosa, differ from those we have mentioned. Mandelslo, as well as the writers of the collection of the voyages which paved the way for the establishment of the Dutch East India Company, informs us, that these islanders are taller than the Europeans; that their colour is brownish black; that their bodies are hairy; and that the women are of a

low stature, but robust, fat, and tolerably proportioned. In most of the writers concerning this island, there is no mention of men with tails; and they differ widely from each other in their descriptions of the form and features of the natives. But, with regard to one fact, which is no less extraordinary, they all seem entirely to agree, namely, that the women are not permitted to bear children till the age of thirty-five, though they are at liberty to marry long before that period. Speaking of this custom, Rechteren expresses himself in the following terms: "After marriage, the women are not allowed to be mothers till they have completed their thirty-fifth or thirty-seventh year. When they are pregnant before this period, their priestesses trample with their feet upon the women's bellies, and in this manner force them to miscarry, an operation much more painful and dangerous than a natural labour: but it is disgraceful, and even a high crime, to allow a child to come into the world before the age prescribed. I have seen women who had sixteen of these forced miscarriages, and were only permitted to bring forth their seventeenth child." A dreadful disaster has but lately befallen this unhappy island; for on the 22d of May, 1782, part of the vast chain of mountains, which divided the country, suddenly sunk into the ocean, and over-turning a considerable part of the island, thousands of the miserable inhabitants were swallowed up by the sea, which left only a small part of the land remaining.

The Mariana or Ladrone islands, which are the most remote from the eastern coast, are inhabited by a rude and unpolished people. Father Gobien tells us, that, till the arrival of the Europeans, they had never seen fire, and that they were extremely surprised when this element was first exhibited to them by Magellan, who, provoked by their repeated thefts, burned one of their villages. When they saw their wooden houses blazing, they first thought that the fire was a

beast

beast which fed upon the wood; and some of them, who came too near, were burnt, the rest stood at a distance, lest they should be devoured or poisoned by the breathings of this terrible animal. Their colour is tawny, though somewhat fairer than that of the natives of the Phillippines; they are stronger and more robust than the Europeans; they are tall and well-proportioned, and go stark naked. Though they feed solely on roots, fruits, and fish, yet they are fat and corpulent; but their corpulency prevents them not from being nimble and active. They live so long, that the age of one hundred years is not extraordinary among them, without ever experiencing disease or sickness. We are told by Gemelli Carreri, that the natives of these islands are of a gigantic size, and that they are so strong, that they can, with ease, carry on their shoulders a weight of five hundred pounds. In general, their hair is crisped, their nose and eyes are large, and their complexion is like that of the Indians. The inhabitants of Guan, one of these islands, have long black hair, a large nose, thick lips, white teeth, a long visage, a ferocious aspect; they are likewise exceedingly robust; and their stature, it is said, extends to seven feet in height.

To the south of the Ladrone islands, and eastward of the Molucca, we find the land of the Papous and New Guinea, which seem to be the most southerly regions of the globe. According to Argensola, the Papous are as black as the Caffres, have crisped hair, and a meagre and disagreeable visage. Among these people, however, there are some who are as white and fair as the Germans; but their eyes are weak and delicate. We are also informed by Le Maire, that the natives of this country are very black, savage, and brutal. They wear rings in their ears and noses, and sometimes in the partition of the nose. They likewise wear bracelets of mother-of-pearl above the elbows and on the wrists, and they cover their heads
with

with caps made of the bark of trees, painted with different colours. They are strong and well proportioned, have black teeth, a pretty good beard, and black and crisped hair, though not so woolly as that of the other negroes. They are swift in the chace; and, as the use of iron is unknown to them, their weapons consist of clubs, lances, and spears, made of hard wood. They likewise use their teeth as offensive weapons, and bite like dogs. They eat betle and pimento mixed with chalk, which also serve them for powder to their beards and hair. Their women have a disgusting aspect: they have long breasts which hang down to the navel, very prominent bellies, small arms and limbs, the visage of an ape, and frightful features. Dampier tells us, that the natives of the island of Sabala, in New Guinea, are a kind of tawny Indians, with long black hair, and who differ not in manners from those of the island of Mindanao, and of the eastern isles; that, beside these, who appear to be the principal inhabitants of New Guinea, there are also Negroes with frizzled woolly hair. Speaking of another of these islands, called Garret-Denys, our author remarks, that the inhabitants are black, robust, and well made; that they have large round heads, and short crisped hair, which they cut in different fashions, and paint with various colours, as red, white, and yellow; that they have large round faces, and broad and flat noses; that their countenances, however, would not be absolutely disgusting, if they did not thrust through their nostrils a kind of peg, about an inch thick and four inches long, so that each end of it rests upon their cheek-bones, and only a small part of the nose appears around this unnatural ornament; and that they wear similar pegs in their ears. Capt. Cook made the coast of New Guinea on the 3d of September, 1770, and landed in the pinnace, accompanied by Mr. Banks, Dr. Solander, nine of the ship's crew, and servants well armed, and leaving two seamen to take care of the
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the boat, advanced some little way up the country; but, coming to the skirts of a thick wood, they judged it prudent to proceed no further, lest they should fall into an ambuscade of the natives, and their retreat to the boat be cut off. Having advanced about a quarter of a mile from the boat, three Indians rushed out of the wood with a hideous shout; they threw their darts, and shewed such a hostile disposition, that the party, to prevent the destruction of these people, returned to the boat, as they had no intention forcibly to invade their country, either to gratify their appetites or curiosity, and it was evident nothing could be done upon friendly terms. When they got on board the boat, they rowed along the shore, and the number of Indians assembled, seemed to be between sixty and a hundred. They made much the same appearance as the New Hollanders at Botany-bay, and Port Jackson, being stark naked, and their hair cropped short. All the while they were shouting defiance, and throwing something out of their hand which burnt exactly like gun-powder, but made no report; what these fires were, or for what purpose intended, could not be guessed at; those who discharged them had in their hands a short piece of stick, possibly a hollow cane, which they swing sidewise from them, and immediately fire and smoke issued, exactly resembling the discharge of a musket, and of no longer duration. This wonderful phenomenon was observed from the ship; and the deception was so great, that the people on board thought they had fire-arms; and even in the boat if they had not been so near as that they must have heard the report, if there had been any, they should have thought they had been firing volleys. After looking at them attentively for some time, without taking any notice of their flashing and vociferation, the sailors fired some muskets over their heads. Upon hearing the balls rattle among the trees, they walked leisurely away, and the boat returned to the ship.

ship. Upon examining some weapons which the natives had thrown, they were found to be light darts, about four feet long, very ill made, of a reed or bamboo cane, and pointed with hard wood, in which there were many barbs. They were discharged with great force, for at sixty yards distance they went beyond the party; but in what manner they were thrown could not be exactly seen. But the general opinion was, that they were thrown with a stick in the manner practised by the New Hollanders.

The natives of the coast of New Holland, which is situated in the sixteenth degree of south latitude, and beyond the island of Timor, are perhaps the most miserable of the human species, and approach nearest to the brutes. They have remarkable thick noses and lips, and large mouths: they pull out, it should appear, one of the fore-teeth of the upper-jaw; for, in neither sex, nor at any period of life, are these teeth to be seen. They have no beard; their visage is long, without a single feature that is agreeable; their hair is short, black, and crisped; and their skin is as black as that of the Guinea negroes. They have no cloathing but a piece of the bark of a tree tied round their waist, with a handful of long herbs in the middle. They have no houses, and they sleep on the ground without any covering. They associate, men, women, and children, promiscuously, to the number of twenty or thirty. Their principal nourishment is fish, which they catch in the sea; and they are totally unacquainted with bread, and every species of grain.

In another part of the coast of New Holland, about the twenty-second or twenty-third degree south latitude, the natives seem to be of the same race with those above described. They are extremely ugly and disgusting, and have nearly the same brutal manners; their skin is black, their hair crisped, and their bodies are long and slender. Governor Phillip, after settling the English convicts at Botany-bay and Port Jackson,





J. B. Del.

J. Chapman Sculp.

An exact Portrait of
A Savage of Botany Bay.

Published as the Act directs. Feb. 15. 1795.

son, gives the following account of the natives: "The inhabitants of New Holland, and New South Wales, (which is the eastern extremity of the island) are the most miserable and savage race of mortals, perhaps, existing on the face of the earth. They go entirely naked; and, though pleased at first with some ornaments which were given them, they soon threw them away as useless. It does not appear, however, that they are insensible of the benefits of clothing, or of some of the conveniencies which their new neighbours are in possession of. Some of them, whom the colonists partly clothed, seemed to be pleased with the comfortable warmth they derived from it; and they all express a great desire for the iron tools which they see the English make use of. Their colour, in the opinion of captain Cook, is rather a deep chocolate than a full black: but the filth and grease, with which, like the Hottentots, their skins are covered, prevents the true colour of them from appearing. At some of their interviews with the convicts, several droll instances happened of their mistaking the negroes among the colonists for their own countrymen. Notwithstanding their disregard for European finery, they are fond of deforming their bodies with scars; so that some of them cut the most hideous figure that can be imagined. The scars themselves have an uncommon appearance. Sometimes the flesh is raised several inches from the skin, and appears as if filled with wind; and all these seem to be reckoned marks of honour among them. Some of them perforate the cartilage of the nose, and thrust a large bone through it, an hideous kind of ornament, humorously called by the English sailors, their *sprit-sail yard*. Their hair and head are generally so much clotted with filth, that they resemble a mop. They also paint themselves with various colours, like most other savages: they will also sometimes ornament themselves with beads and shells, but make no use of the beautiful feathers procured

from the birds of the country. Most of the men want one of the fore teeth in the upper-jaw; a circumstance mentioned by Dampier and other navigators; and this also appears to be a badge of honour among them. It is very common among the women to cut off the two lower joints of the little finger; which, considering the clumsiness of the amputating instruments they possess, must certainly be a very painful operation. This was at first supposed to be peculiar to the married women, or those who had borne children, but some of the oldest women are found without this distinction, while it is observed in others who are very young."

There is no good reason for supposing them to be cannibals, and they never eat animal substances but raw or next to it. Some of their vegetables are poisonous when raw, but deprived of this property when boiled. A convict unhappily experienced this by eating them in an unprepared state; in consequence of which he died in twenty-four hours. They certainly burn their dead; which, perhaps, has given rise to the report of their being cannibals. In their persons the New Hollanders are active, vigorous, and stout, though generally lean. Dampier asserts, that they have a dimness of sight; though later navigators have determined this to be a mistake, ascribing to them, on the contrary, a quick and piercing sight. Their sense of smelling is also very acute. Their behaviour with regard to the women has been unaccountable to the colonists. Few of them, comparatively speaking, have been seen; and these have sometimes kept back with the most jealous sensibility; sometimes offered with the greatest familiarity. Such of the females as have been seen, have soft and pleasing voices; and notwithstanding their barbarism and excessive rudeness, seem not to be entirely destitute of modesty.

From these descriptions, it is apparent, that the islands and coasts of the Indian ocean are peopled with
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men of very different races. The natives of Malacca, of Sumatra, and of the Nicobar islands, seem to derive their origin from the inhabitants of the peninsula of Indus; and those of Java from the Chinese, except the white men called Chacrelas, who must have sprung from the Europeans. The natives of the Molucca islands seem also, in general, to have proceeded from the Indian peninsula. But the inhabitants of the island of Timor, which lies nearest to New Holland, are very similar to the people of that country. Those of Formosa, and of the Mariana islands, resemble each other in stature, strength, and features; and they appear to form a race entirely distinct from every other people in the neighbourhood. Those nations adjacent to New Guinea, are real negroes, and resemble those of Africa, though they are separated from that continent by a tract of sea more than two thousand two hundred leagues over. The natives of New Guinea and of New Holland, have however a strong analogy to the Hottentots; which will perhaps appear more obvious after taking a view of the nations of Asia and Africa.

The Moguls, and other natives of the peninsula of India, nearly resemble the Europeans in traits and features; but they differ, more or less, from them in colour. The Moguls are olive, though, in the Indian language, Mogul signifies white. The women are extremely handsome, and make frequent use of bathing. Like the men, they are of an olive colour, and, what is opposite to the women of Europe, their legs and thighs are long, and their bodies short. Tavernier says, that, after passing Lahor, and the kingdom of Cashmire, the Mogul women have naturally no hair on any part of the body, and that the men have very little beard. According to Thevenot, the Mogul women are chaste, very fruitful, and bring forth with so much ease, that they frequently walk the streets the very next day after delivery. He adds, that, in the

kingdom of Decan, the men marry at ten, and the women at the age of eight years, and that they have often children at this early period; but the women, who have children so soon, commonly cease to bear after the age of thirty, when they are wrinkled, and have all the appearance of decrepitude. Some of these women have their skin punctured in the form of flowers, and painted with the juices of plants, which gives the skin the appearance of being stuffed with flowers.

The natives of Bengal are yellower than the Moguls; their manners are also totally different: their women, instead of being chaste, are supposed to be the most lascivious in India. A great slave-trade, both of males and females, is carried on in this country; and a number of eunuchs are made, both by a simple privation of the testicles, and by a total amputation of the parts. The Bengaliens are handsome, active, and industrious; they love commerce, and have a great deal of mildness in their manners.

The natives of the Coromandel coast are blacker than those of Bengal; they are also less civilized, and, from the intense heat of the country, go almost naked. Those of the Malabar coast are still blacker. They have very long, smooth, black hair, and are of the same size with the Europeans. The women wear gold rings in their noses; and the men, women, and young girls, bathe promiscuously in ponds, made for the purpose, in the middle of their towns. The women, though black, or at least exceedingly brown, are comely and handsome, and they marry at the age of eight years.

The customs of the different Indian nations are all very singular, if not whimsical. The Banians eat nothing that is animated; they even dread to kill the smallest insect, and will not destroy the louse that bites them. They throw rice and beans into the rivers, to nourish the fishes, and grain upon the ground, to
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feed the birds and insects. When they meet a hunter or a fisher, they earnestly beg of him to desist: if he be deaf to their entreaties, they offer him money for his gun or net; and, if he does not comply, they trouble the waters to fright away the fishes, and set up hideous cries, to put the birds and other game to flight.

The Naires of Calicut form a band of nobles, whose only profession is that of arms. These men, though of an olive colour, are comely and handsome. They are tall and hardy, full of courage, and very dexterous in the management of their weapons. They lengthen their ears to such a pitch, that they hang down on their shoulders, and sometimes lower. These Naires are allowed only one wife; but the women may have as many husbands as they please. In former times they had several strange customs, some of which are still kept up; particularly the samorin's wife must be enjoyed by the high priest, who may have her three nights if he pleases. The nobles permit the other priests to take the same liberty, but the lower people cannot have that honour. A woman may marry a number of husbands; each of whom has her ten days, or more, by turns, as they agree among themselves; and provides her all things necessary during that time. When she proves with child, she names the father; who, after the child is weaned, takes care of its education. These people have no pens, ink, or paper; but write with a bodkin on flags that grow by the side of the rivers. By this means the letters are, in some sense, engraved; and so tough are the flags, that they will last for a great number of years. Father Tachard, in his letter to father la Chaise, also gives a curious account of the natives of this country; he tells us, that, in the cast or class of nobles, a woman sometimes has ten husbands, whom they regard as slaves subjected to their beauty. This privilege is confined to ladies of rank; for women of inferior condition are allowed but one husband: the latter, indeed, take care to alleviate
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this hardship by their commerce with strangers, to whose embraces they abandon themselves without reserve; and their husbands dare not challenge them. The mothers prostitute their daughters even before they arrive at a proper age. The Naires or nobles of Calicut seem to be of a different race from the burghesses; for the latter, both males and females, are of a smaller stature, and are worse shaped, and more ugly. Among the naires there are some men, as well as women, whose legs are almost as thick as the body of a full-grown youth. This deformity is not a consequence of disease; for they have it from their birth. In some, this monstrous thickness is confined to one leg only. The skin of these legs is hard and rough, like a wart: notwithstanding this cumbersome deformity, the persons affected with it are nimble and active. This race of men with thick legs have not multiplied greatly, either among the Naires or the other Indians. They, however, appear in other places, and especially in Ceylon, where they are said to be of the race of St. Thomas.

The natives of Ceylon are similar to those of the Malabar coast. Though they are not equally black, they have large ears which hang down to their shoulders. Their aspect is mild; and they are naturally alert, dexterous, and vivacious. Their hair, which is very black, is worn short by the men. The common people go almost naked; and the women, according to a custom pretty general in India, have their bosoms uncovered. Mr. Knox, in his History of Ceylon, reports many strange things of their religion and customs. He says, "that they have various ways of treating their dead. Some burn them, which is not uncommon in India; while others throw their limbs up into the forks of trees." Other historians relate, that the natives of Ceylon feed on human flesh; nay, that they eat the bodies of their deceased parents, imagining that no other sepulchre is so fit for them as their
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own bowels, since thereby they think they are changed into their own substance, and live again in themselves. This shocking custom is reported of the antient Scythians, and possibly might have been used by the inhabitants of Ceylon, but is now in both countries almost entirely abolished; and yet even at this day these islanders are said to make cups of their parents skulls, with a view, that in the midst of their mirth and jollity, they may be sure to preserve a respectful remembrance of them. In the northern part of the island of Ceylon, there is a species of savages called Bedas, who occupy only a small district, and seem to be of a peculiar race. The spot they inhabit is entirely covered with wood, in which they conceal themselves so closely, that it is difficult to discover any of them. Their complexion is fair, and sometimes red, like that of the Europeans. Their language has no analogy to any of the other Indian languages. They have no villages or houses, and hold no intercourse with the rest of mankind. Their arms consist of bows and arrows, with which they kill a number of boars, stags, and other animals. They never dress their meat; but season it with honey, with which they are plentifully provided. We are ignorant of the origin of this tribe, who are not numerous, and who live in detached families. These Bedas of Ceylon, as well as the Chacrelas of Java, who are both fair and few in number, appear to be of European extraction. It is probable, that some European men and women have been formerly left on these islands by shipwreck, or otherwise, and that, for fear of being massacred by the natives, they, and their descendants, have ever since confined themselves to the woody and mountainous parts of the country, where they continue to lead a savage life, which, perhaps, wants not its charms to those who are accustomed to such a mode of living.

The natives of the Maldiva islands, in the Indian ocean, are supposed to have descended from those of Ceylon,

Ceylon, though there is no resemblance between them: for the natives of Ceylon are black and deformed; but those of the Maldiva islands are handsome, and, except their olive colour, differ little from the Europeans; besides, they are a people composed of all nations. The inhabitants of the northern parts of these islands are more civilized than those who inhabit the southern parts. The women, notwithstanding their olive colour, are handsome, and some of them nearly as fair as the Europeans. Their hair is universally black, which they regard as a beauty, and studiously render the hair black, by shaving the heads of their boys and girls every eight days, till they arrive at the age of nine or ten. This practice, it is probable, contributes to blacken the hair; for, though almost every man and woman has black hair, that of their children is sometimes pretty fair. Another beauty among the women is to have their hair very long and thick, and, for this purpose, they anoint their head and body with a perfumed oil. The men are more hairy than those of Europe. These islanders love exercise, and are industrious artists; they are superstitious, and much addicted to venery; though the women here carefully conceal their bosoms, they are, nevertheless, exceedingly indolent and debauched; they perpetually eat betle and other hot spices.

The natives of Cambai are more or less of an ash colour; and those who live near the sea are more swarthy than the others. Those of Guzarat are yellow; and the Canarians, or the inhabitants of Goa and of the neighbouring islands, are olive. We are informed by the Dutch voyagers, that the natives of Guzarat are more or less yellow; that their stature is the same with the Europeans; that the women, who seldom expose themselves to the sun, are fairer than the men, and that some of them are nearly as white as the Portuguese. Mandelslo says, that the inhabitants of Guzarat are all more or less tawny, or olive, accord-

ing to the climate under which they live; that the men are strong and well made, and have large faces and black eyes: that the women are little, but handsome; and that they wear long hair, pegs in their noses, and large pendants in their ears. There are very few deformed persons among them; some of them are fairer than others, but all have black straight hair. The antient inhabitants of Guzarat are easily distinguished from the others by their colour, which is much blacker; they are likewise more barbarous and stupid.

Goa is the principal settlement of the Portuguese in India; and, though its antient splendour is much decayed, it still continues to be an opulent and commercial city. The Portuguese missionaries have made prodigious progress here; and there are a great many Indian converts, but they generally retain some of their old customs; particularly they cannot be brought to eat beef. It was formerly the greatest market for slaves in the whole world. Handsome women and girls were sold here from every nation of Asia. These slaves were of all colours; and they were skilled in music, and in every species of sewing and embroidery. The Indians were most enamoured with the Caffre girls from Mozambique, who are very black. "It is remarkable," says Pyrard, "that the sweat of the Indians, whether male or female, has no unfavourable odour, while the stench of the African negroes, when they are over-heated, is perfectly insupportable." He adds, that the Indian women are fond of the European men, and prefer them even to the white Indians.

The Persians are adjacent to the Moguls, and have a great resemblance to them; those especially who inhabit the southern parts of Persia differ very little from the Indians. The natives of Ormus, and of the provinces of Bascia and Balascia, are very brown and tawny; those of Chesmur, and of the other provinces of Persia, where the heat is not so great as at Ormus, are fairer; and those of the northern pro-

vinces are tolerably white. According to the Dutch travellers, the women in the islands of the Gulf of Persia are brown or yellow, and not at all agreeable. They have a large visage, and ordinary eyes. In some of their manners and customs, they resemble the Indian women, as those of wearing rings in the cartilage of the nose, and of passing a gold pin through the skin of the nose, near the eyes. Indeed this custom of piercing the nose for the purpose of embellishing it with rings and other trinkets has extended much farther than the Gulf of Persia: many Arabian women wear rings in their noses; and it is a piece of gallantry among men to salute their wives through these rings, which are sometimes so large, that they encircle the whole mouth.

Xenophon says, that the Persians were generally thick and fat. Marcellinus, on the contrary, tells us, that, in his time, they were thin and meagre. Olearius agrees with the last author, and adds, that they are strong and hardy; and that they are of an olive colour, and have black hair and aquiline noses.

That the blood of the Persians, says Chardin, is naturally gross, appears from the Guebres, who are a remnant of the antient Persians, and are an ugly, ill-made, rough-skinned, people. This is also apparent from the inhabitants of the provinces in the neighbourhood of India, who are nearly as clumsy and deformed as the Guebres, being also part of the Aborigines, or first inhabitants; and, like them, never form alliances with any other tribes. They are a poor, ignorant, inoffensive, people, extremely superstitious, and zealous for their rights, rigorous in their morals, and honest in their dealings. They profess to believe a resurrection and a future judgment, and to worship only one God. And though they perform their worship before fire, and direct their devotion towards the rising sun, for which they have an extraordinary veneration, yet they strenuously maintain that they worship neither; but that these are the most expressive symbols of the Deity,

Deity, and that for this reason they turn towards him in their devotional services. However, some have supposed, that these are Persians converted to Christianity, who, being afterwards left to themselves, mingled their antient superstitions with the truths and practices of Christianity, and so formed for themselves a religion apart: and they allege, that throughout the whole of their system of doctrine and practice, we may discern the marks and traces of Christianity, though grievously defaced. But, in the other parts of the kingdom, the Persian blood is now highly refined by frequent intermixtures with the Georgians and Circassians, two nations who surpass all the world in personal beauty. There is hardly a man of rank in Persia who is not born of a Georgian or Circassian mother; and even the king himself is commonly sprung, on the female side, from one or other of these countries. As it is long since this mixture commenced, the Persian women have become very handsome and beautiful, though they do not rival the ladies of Georgia. The men are generally tall and erect; their complexion is ruddy and vigorous, and they have a graceful air and an engaging deportment. The mildness of the climate, joined to their temperance in living, have a great influence in improving their personal beauty. This quality they inherit not from their fathers; for, without the mixture mentioned above, the men of rank in Persia, who are descendants of the Tartars, would be extremely ugly and deformed. The Persians, on the contrary, are refined and ingenious; their imagination is lively and fertile; though warlike, they are lovers of the arts and sciences; they are vain, and extremely ambitious of praise; their temper is soft and ductile; they are voluptuous, and much addicted to gallantry and intrigue; they are luxurious and prodigal, and equally strangers to economy and to commerce. The Persians, though in general sober, devour vast quantities of fruit. Nothing is more com-

mon than to see a man eat twelve pounds of melons ; some will devour three or four times that quantity ; and many of them fall a sacrifice to this excessive appetite for fruit. Fine women of all complexions are common in Persia ; for they are selected by the merchants, from every country, on account of their beauty. The white women are brought from Poland, from Muscovy, from Circassia, from Georgia, and from the frontiers of Great Tartary : the tawny women are transported from the Mogul's dominions, and from the kingdoms of Golconda, and Visapore, and the blacks from Melinda and the coasts of the Red Sea. A strange superstition prevails among the inferior class of women. Those that are barren imagine that passing under the dead bodies of suspended criminals will render them fruitful ; they even believe that the influence of a male corpse, though at a distance, is sufficient to impregnate them. When this absurd remedy does not succeed, they go into the canals of water which run from the baths, when they know that many men are employed in bathing themselves ; and, if this specific be equally unsuccessful as the former, their last resource is to swallow that part of the prepuce which is cut off in the operation of circumcision, which they consider as a sovereign remedy against sterility.

The inhabitants of Persia, of Turkey, of Arabia, of Egypt, and all Barbary, may be regarded as the same race of people, who, in the time of Mahomet and his successors, extended their dominions by invading immense territories, and became exceedingly diversified by intermixing with the original natives of all these different countries. The Persians, the Turks, and the Moors, have acquired a degree of civilization ; but the Arabs have generally continued in a state of lawless independency. Like the Tartars, they live without government, without law, and almost without society. Rape, theft, and robbery, are authorised by their chiefs ; and they despise every human institution,

instituition, except those which sanctify a state of perfect freedom.

The Arabs, however, are enured to labour. They likewise accustom their horses to undergo the greatest fatigue, and allow them to drink only once in twenty-four hours. Their horses are meagre, but swift, and almost indefatigable. These people live nearly in a state of nature. They have neither bread nor wine; neither do they take the trouble of cultivating the ground. In place of bread, they use some wild grain, which they mix and knead with the milk of their cattle. They have flocks of camels, sheep, and goats, which they conduct from place to place till they find sufficient herbage for them. Here they erect their tents, which are made of goat's hair, and live with their wives and children till the grass is consumed; they then decamp, and go in quest of another fertile spot. Though their mode of living be hard, and their stature generally small, yet the Arabs are strong, and tolerably handsome. But their skin is scorched with the heat of the sun; for most of them go either entirely naked, or are covered only with a tattered shirt. Those who live on the coasts of Arabia Felix, and of the island of Socotra, are of a still smaller stature; their complexion is ash-coloured or tawny, and in the form of their bodies they have a great resemblance to the Abyssinians. The Arabs paint their arms, their lips, and the most conspicuous parts of their body, of a deep blue colour. This paint, which they lay on in small dots, and make it penetrate the flesh by means of a needle made for the purpose, can never be effaced. This singular custom prevails likewise among the negroes who trade with the Mahometans.

Among the Arabs who live in the deserts on the frontiers of Tremesen and Tunis, the girls, to improve their beauty, paint their bodies with cyphers of a blue colour, which they accomplish by means of vitriol and the point of a lancet. In this they are followed

ed by the country Africans, but not by those that live in towns; for there they preserve the same colour they bring with them into the world. Some of them, indeed, paint a small flower on their cheek, their forehead, or their chin, with the smoke of galls and saffron, which makes a fine black colour: they likewise blacken their eye-brows. La Boulaye informs us, that the Arabian women of the desert paint their hands, lips, and chin, of a blue colour; that most of them wear rings of gold or silver, about three inches diameter, in their noses; that, though they are born fair, their complexions are spoilt by being continually exposed to the sun; that the young girls are extremely agreeable, and sing perpetually; but their songs are not melancholy and plaintive, like those of the Turks, but have a still stranger effect, because they raise their voice to the highest pitch, and articulate with great rapidity.

“The Arabian princesses and ladies,” another traveller remarks, “whom I was permitted to see, were extremely handsome, and remarkably fair, because they are always covered from the rays of the sun. But the common women, besides their natural tawny complexion, are very much blackened by the sun; their form is exceedingly disagreeable, and, except those natural attractions which always accompany youth, I could never perceive any thing in their appearance that could please the fancy. These women puncture their lips with needles, and cover them with gunpowder and the gall of oxen, which penetrate the skin, and render their lips blue and livid during life. They practise the same arts upon the angles of the mouth, on each side of the chin, and upon the cheeks. They blacken the eye-lids with a black powder, and draw a black line from the corner of each eye, in order to make them appear more expanded; for the chief beauty of the eastern women consists in large prominent eyes. Female beauty among the Arabs is expressed by saying,
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That she has the eyes of the antelope. They always compare their mistresses to this sprightly animal; and black eyes, and the eyes of the antelope, are the principal topics of their love-songs. The antelope is indeed a most beautiful and handsome creature, and has in its aspect a certain degree of innocent timidity, which resembles, in a striking manner, the modesty and apprehension natural to young women. The ladies and new-married wives blacken their eye-brows, and make them join in the middle of the forehead. They puncture their arms and hands, and form upon them the figures of animals, flowers, &c. and paint their nails of a reddish colour: the men also paint their hair and the tails of their horses with the same colour. The women pierce their ears in several places, for the purpose of hanging rings and broaches to them, and they also wear bracelets on their arms and legs." To this account it may be added, that the Arabs are exceedingly jealous of their wives; and that, though they either purchase them, or carry them off by force, they treat them with gentleness, and even with respect.

Before the religion of Mahomet took place, the cruel practice of human sacrifices was long preserved among the Arabs; in the third century, a boy was annually sacrificed by the tribe of the Dumations; and a royal captive was piously slaughtered by the prince of the Saracens, the ally and soldier of the emperor Justinian. The father of Mahomet himself was devoted to be burnt on the altar, and hardly ransomed for the equivalent of one hundred camels. The Arabs, like the Jews and Egyptians, abstained from the taste of swine's flesh; and they circumcised their children at the age of puberty; the same customs, without the censure or the precept of the Koran, have been silently transmitted to their posterity and proselytes even to this day; and it has been sagaciously conjectured, that the artful legislator indulged from necessity the stubborn prejudices of his countrymen.

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The Egyptians, though adjacent to the Arabs, and though governed by the same laws, and professing the same religion, are very different in their manners and customs. In all the towns and villages along the Nile, for example, we find young girls destined by the public to the pleasure of travellers, without any obligation to pay for this indulgence. For this species of hospitality, they have houses filled with these girls; and it is a pious practice with rich men, when about to die, to found and endow houses for this charitable purpose. When any of these young women bring forth male children, the mothers are obliged to rear them to the age of three or four years; after which the children are carried to the patron of the house, or his representatives, who then take charge of them, and employ them as slaves; but the female children continue with their mothers, and supply their place.---The Egyptian women are very brown, but have lively eyes. Their stature is below the middle size; and their dress is not agreeable, nor their conversation pleasing. They are remarkable for bearing many children; and some travellers pretend that the fertility occasioned by the inundation of the Nile is not limited to the soil alone, but extends to men and other animals. They add, that the women uniformly conceive after either drinking, or bathing in the new water; that, in July and August, the women are generally impregnated, and bring forth in April and May; and that the cows commonly produce two calves, and the ewes two lambs. It is difficult to reconcile these benign influences of the Nile with the troublesome diseases it occasions; for M. Granger informs us, that the air of Egypt is unwholesome; that diseases of the eyes are frequent, and so very difficult to cure, that the patients generally lose their sight; that in Egypt there are more blind persons than in any other country; and that, during the increase of the Nile most of the inhabitants are seized with obstinate dysenteries, occasioned by the salts with which

which the water is impregnated. M. Volney informs us, that out of every hundred people he met in the streets of Grand Cairo, he might reckon twenty quite blind; ten without the sight of one eye; and twenty others with their eyes red, purulent, or blemished. Almost every one, says he, wears a fillet, a token of an approaching or convalescent ophthalmia. In considering the causes of this disorder, he reckons the sleeping upon terraces to be the principal one; but in this country blindness is often the consequence of the small-pox, a disorder very frequent and very fatal among the Egyptians; and no doubt the more dangerous on account of their absurd method of treating it, of which it is needless to enter into any discussion. They are not unacquainted with inoculation; but seem not to be sensible of its advantages, as they very seldom practise it. To the cause of unwholesome food, M. Volney ascribes the general deformity of the poor, and the miserable appearance of the children; which he says are no where so wretched. Their hollow eyes, pale and puffed faces, swollen bellies, meagre extremities, and yellow skins, make them always seem as if they had not long to live. Their ignorant mothers pretend that this is the effect of the evil eye of some envious person, who has bewitched them; and this ancient prejudice is still general in Turkey: but the real cause is the badness of their food. In spite of the talismans, therefore, an incredible number of them perish; nor is any city more fatal to the population of the neighbouring country than Grand Cairo.

The venereal disease, which, for reasons best known to themselves, the inhabitants call the *blessed evil*, is so general at Cairo, that one half of the inhabitants are infected. It is extremely difficult to cure, though the symptoms are comparatively very mild, inasmuch that people who are infected with it will frequently live to the age of eighty; but it is fatal to children born with the infection, and exceedingly dangerous to such as

emigrate to a colder climate. Notwithstanding the oppression which the Egyptians labour under, a very considerable trade is carried on from Cairo. This flourishing state of commerce in the midst of the most desperate barbarity and despotism is owing to three causes. 1. That all the commodities consumed in Egypt are collected within the walls of that city. 2. That the Mamlouks and all the people of property reside in that place, and there spend their whole revenues. 3. By the situation of this city it is a centre of circulation; corresponding with Arabia and India, by the Red Sea; with Abyssinia and the interior parts of Africa, by the Nile; and with Europe and the Turkish empire, by means of the Mediterranean. A caravan comes here annually from Abyssinia, bringing from 1000 to 1200 slaves, with gum, ivory, gold-dust, ostrich-feathers, parrots, and monkeys. -- Another which sets out from the extreme parts of Morocco, takes in pilgrims for Mecca from all that country as far south as the mouth of the river Senegal. It consists of not fewer than three or four thousand camels; and, passing along the coasts of the Mediterranean, collects likewise the pilgrims from Algiers, Tripoli, and Tunis, arriving at last at Alexandria, by the way of the desert. Proceeding thence to Cairo, it joins the Egyptian caravan; and then setting out both together, they take their journey to Mecca, from whence they return in one hundred days; but the Morocco pilgrims, who have still six hundred leagues to go, are upwards of a year in returning. The commodities they bring along with them are, India stuffs, shawls, gums, perfumes, pearls, and principally coffee. Besides the profits of this merchandise, considerable sums arise from the duties paid by pilgrims, and the sums expended by them. From so many sources we need not wonder that the commerce of Cairo should be in a very flourishing state. In 1783, according to the report of the commissioner-general of the customs, it amounted

to no less than 6,250,000. Yet, notwithstanding the great intercourse of the Egyptians, the arts and all kinds of learning are at a very low ebb among them. Even the most simple of the mechanical professions are still in a state of infancy. The work of their cabinet-makers, gunsmiths, and locksmiths, is extremely clumsy. One very extraordinary art indeed is still extant among the Egyptians, and appears to have existed in that country from the most remote antiquity; and that is a power of enchanting the most deadly serpents in such a manner, that they shall allow themselves to be handled, nay even hurt in the severest manner, without offering to bite the person who injures them.

Though the Egyptian women are commonly small, yet the men are of a good size. In general, both sexes are of an olive colour; and the higher we ascend from Cairo, the natives become more tawny, till we arrive at the confines of Nubia, where they are almost as black as the Nubians themselves. Idleness and cowardice are now the principal vices of the Egyptians. Their chief employment through the day is drinking coffee, smoking tobacco, sleeping, and lounging in the streets. Though they acknowledge that they have lost their ancient dignity, their skill in science and in arms, their history, and even their language, and that, from a valiant and illustrious nation, they have degenerated into slavery and cowardice; yet such is the haughtiness of their disposition, that they affect to despise all other nations, and are exceedingly offended when any person advises them to send their children into Europe to be instructed in the arts and sciences.

The numerous nations who inhabit the coasts of the Mediterranean, from Egypt to the Western ocean, and the internal regions of Barbary, as far as Mount Atlas, are composed of people of different races, as the Moors and Brebes, who are the original natives; also Arabs, Vandals, and Spaniards; and, in more ancient times, the Romans and Egyptians peopled these territories

tories with men of very different qualities. The inhabitants of the mountains of Arras, for example, have no resemblance in their aspect and complexion to the adjacent tribes. Their colour, instead of being tawny, is white and ruddy, and their hair is of a deep yellow; but that of the adjacent nations is black. From these circumstances Mr. Shaw thinks it probable, that they are descendants of the Vandals, who, after their expulsion, took refuge in certain parts of these mountains. The women of the kingdom of Tripoli, though adjacent to those of Egypt, have not the smallest resemblance to them. The former are tall, and consider height of stature as an essential article of beauty. Like the Arabian females, they puncture and paint their cheeks and chin; and, as in Turkey, they are so fond of red hair, that they paint that of their children with vermillion.

The Moorish women, in general, affect to wear their hair so long as to reach to their heels; and those whose hair is shorter use false locks twisted round with ribbands. They paint the hair of their eye-lids with black lead, and they esteem the dark colour which this substance gives to the eyes as a singular beauty. This custom is both very general and very ancient; it was practised by the ladies of Greece and Rome, as well as by those of the East. Most of the Moorish women would be reckoned handsome even in Europe. The skin of their children is exceedingly fair and delicate; and, though the boys, by being exposed to the sun, soon grow swarthy; yet the girls, who keep more within doors, preserve their beauty till the age of thirty, when they commonly give over child-bearing: but, as a recompense for this early sterility, they are often mothers at the age of eleven, and grandmothers at that of twenty-two; and, as they live as long as the European women; they generally see several generations.

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The Brebes have a language of their own, and never marry but among each other. They have tribes or castles among them who are exceedingly powerful both by their number and courage. Such are those of Gomera on the borders of Rif, of Geyroan toward Fez, of Timoor extending along mount Atlas from Mequinez to Tedla, of Shavoya from Tedla to Duquella, and of Mishboya from Morocco to the south. The emperor of Morocco keeps the children of the chiefs of these tribes at court as hostages for their fidelity. The Brebes have no distinction of dress; they are always clothed in woollen like the Moors; and, though they inhabit the mountains, they rarely wear any thing on their heads. These mountaineers, as well as their wives, have exceedingly fine teeth; and possess a degree of vigour and intrepidity which distinguishes them from the inhabitants of the plains. It is common for them to hunt lions and tigers; and the mothers have a custom of decorating their children with a tiger's claw or the remnant of a lion's hide on the head, thinking that by this means they will acquire strength and courage; and, from a similar superstition, young wives are in use to give their husbands the same as a sort of amulets.

The Moors of the plain wear nothing but their woollen stuff; they have neither shirts nor drawers. Linen among these people is a luxury known only to those of the court or the city. The whole wardrobe of a country Moor in easy circumstances consists in a haïque for winter, another for summer, a red cape, a hood, and a pair of slippers. The common people both in the country and in towns wear a kind of tunic of woollen cloth, white, grey, or striped, which reaches to the middle of the leg, with great sleeves and a hood; it resembles the habit of the Carthusians.

The women's dress in the country is likewise confined to a haïque, which covers the neck and the shoulders, and is fastened with a silver clasp. The ornaments

ments they are fondest of are ear-rings, which are either in the form of rings or crescents, made of silver, bracelets, and rings for the small of the leg; they wear these trinkets at their most ordinary occupations; less out of vanity than because they are unacquainted with the use of caskets or cabinets for keeping them. They also wear necklaces made of coloured-glass beads or cloves strung on a cord of silk. Besides these ornaments, the women, to add to their beauty, imprint on their face, their neck, their breast, and on almost every part of their body, representations of flowers and other figures. The impressions are made with a piece of wood stuck full of needles; with the points of which they gently puncture the skin, and then lay it over with a blue-coloured substance or gunpowder pulverised, and the marks never wear out.

Those who live in the plains are always in the neighbourhood of some rivulet or spring, and they are extremely hospitable, and serve as a kind of inns for the reception of travellers. There is generally a tent erected for their use, if they have not brought one along with them. They are accommodated with poultry, milk, and eggs, and with whatever is necessary for their horses. Instead of wood for fuel, they have the cow-dung, which, when mixed with charcoal, makes a very brisk fire. A guard is always set on the tents of travellers, especially if they are Europeans, because the opinion of their wealth might tempt the avidity of the Moors, who are naturally inclined to thieving.

The Moorish nobles present their wives with jewels of gold, silver, or pearl, but very few wear precious stones; this is a luxury of which they have little knowledge. They have rings in silver or gold; also ear-rings in the form of a crescent, five inches in circumference, and as thick as the end of the little finger. They first pierce their ears, and introduce a small roll of paper, which they daily increase in thickness, till at length

length they insert the kernel of the date, which is equal to the size of the ear-ring. They wear bracelets in gold and solid silver, and silver rings at the bottom of their legs, some of them considerably heavy. The use of white paint is unknown among the Moorish women, and that of red but little. It is much more common to see them dye their eye-brows and eye-lashes, which dye does not add to the beauty of the countenance, but considerably to the fire of the eyes. They trace regular features with henna, of a saffron colour, on their feet, the palm of the hand, and the tip of their fingers.---On their visiting-day they wrap themselves in a clean fine haïque, which comes over the head, and surrounds the face so as to let them see without being seen.---When they travel they wear straw-hats to keep off the sun; and in some parts of the empire the women wear hats on their visits; which is a fashion peculiar to the tribes coming from the south, who have preserved their customs; for the Moors do not change modes they have once adopted. They use the rite of circumcision, and their religion is that of Mahomet.

In reading Marmol's description of these different nations, it is obvious to remark, that the inhabitants of the mountains of Barbary are white, and that those of the plains and sea-coasts are very brown and tawny. He tells us, that the inhabitants of Capez, a city in the kingdom of Tunis, situated upon the Mediterranean coast, are poor, and very black; that those who live along the banks of the river Dara in the kingdom of Morocco, are exceedingly tawny; and that, on the contrary, the inhabitants of Zarhou, and of the mountains of Fez, on the side of Mount Atlas, are very fair. He adds, that the latter are so little affected with cold, that, in the greatest frosts and snow, they dress very lightly, and go with their heads uncovered during the whole year. And, with regard to the Numidians, he says, that they are rather tawny than black; that the women are fair and comely, though the men are meagre;

meagre; but that the inhabitants of Gauden, at the extremity of Numidia, and on the frontiers of Senegal, are rather black than tawny; that, on the other hand, the women of the province of Dara are beautiful and fresh-coloured; and that, through this whole region, there are multitudes of negro slaves of both sexes.

It appears then, that, in the ancient continent, all the people who live between the twentieth and thirtieth or thirty-fifth degree of north latitude, namely, from the Mogul Empire to Barbary, and even from the Ganges to the western coast of Morocco, differ but little from each other, except those varieties which have arisen from a mixture with more northern nations, who from time to time, have conquered and peopled some of those vast regions. In this extensive territory, which stretches within the same parallels about two thousand leagues, the men in general are brown and tawny, but at the same time pretty comely and handsome. If we next examine those who live under more temperate climates, we shall find, that the natives of the northern parts of the Mogul and Persian Empires, the Armenians, the Turks, the Georgians, the Mingrelians, the Circassians, the Greeks, and the people of Europe in general, are the fairest and handsomest race in the world; and that however remote Cashmire may be from Spain, or Circassia from France, the natives of these countries, which are nearly at an equal distance from the equator, have a striking resemblance to each other. The people of Cashmire, Bernier remarks, are renowned for their beauty. They are as handsome as the Europeans, and have no features of the Tartarian visage; neither have they those flat noses and pig-eyes so universal among the adjacent nations. Their women are exceedingly handsome; and it is a common practice with strangers, when they come to the Mogul court, to provide themselves with

Cashmirian wives, that they may have children by them as fair as true Moguls.

The blood of Georgia is still more refined than that of Cashmire. In this country an ugly countenance is rarely to be seen. And, with regard to the women, nature has adorned them with a profusion of of graces: they are tall, handsome, slender-waisted; and their faces are truly charming. The men are likewise very handsome. They are naturally ingenious; and, if their education did not render them extremely ignorant and debauched, they might make no inconsiderable progress in the arts and sciences. But there is not, perhaps, a country in the universe where inebriety and libertinism have arrived at so high a pitch as in Georgia. Chardin tells us, that even the clergy are much addicted to wine; that they keep a number of female slaves in their houses, which they use as concubines; and that nobody is offended at this practice because it is general, and even authorised. He adds, that he was informed by the prefect of the Capuchins, that the Patriarch of Georgia declares publicly, that the man who does not get intoxicated at their great festivals, as those of Easter and Christmas, is unworthy of the name of a Christian, and ought to be excommunicated. With all these vices, however, the Georgians are a civil, humane, grave, and peaceable, people. They seldom indulge resentment; but, when they conceive a hatred against any person, they are never to be reconciled. They are esteemed very trusty and faithful; endowed with good natural parts, but, for want of education, very vicious. The women are generally so fair and comely, that the wives and concubines of the king of Persia and his court are for the most part Georgian women. Nature has adorned them with graces no where else to be met with: it is impossible to see them without loving them; they are of a good size, clean limbed, and well shaped.

The women of Circassia, Struys remarks, are likewise exceedingly fair and beautiful. Their complexion consists of the most delicate tints. Their forehead is large and smooth; and, without the assistance of art, their eye-brows are so fine, that they resemble curved threads of silk. Their eyes are large, attracting, and full of fire. Their noses are well shaped, and their lips are perfect vermillion. Their mouth is small, and the perpetual residence of smiles; their chin is the termination of the completest oval. Their neck and throat are extremely handsome; their skin is white as snow; the colour of their hair is a beautiful black; their stature is tall, and their carriage easy. They wear a little black cap, upon which is fastened a roller of the same colour. But, what is extremely ridiculous, the widows, in place of this roller, wear a bladder of an ox or a cow, fully blown up with air, which disfigures them amazingly. In summer, the women of inferior station wear only a shift, which is generally blue, yellow, or red, and open to the middle of the body. Their breasts are finely formed; and, though pretty familiar with strangers, they are in general faithful to their husbands, who are by no means jealous of them.

A very late traveller says, "The apparel of the men of Circassia is much the same with that of the Nagayans: only their caps are something larger; and their cloaks, being likewise of coarse cloth or sheep skins, are fastened only at the neck with a string, and, as they are not large enough to cover the whole body, they turn them round according to the wind and weather. The men are here extremely well favoured, and the women finely shaped, with exceeding handsome features, smooth clear complexions, and beautiful black eyes, which, with their black hair hanging in two tresses, one on each side the face, give them a most lovely appearance: they wear a coif on their heads, covered with a fine white cloth tied under the chin. During the summer they all wear only a shift of divers colours,

colours, and that open so low before, that one may see below their navels: this with their beautiful faces always uncovered (contrary to the custom of most of the other provinces in these parts), their good humour and lively freedom in conversation, altogether render them very attracting: notwithstanding which they have the reputation of being very chaste, though they seldom want opportunity; for it is an established point of good manners among them, that, as soon as any person comes in to speak to the wife, the husband goes out of the house; but whether this continence of theirs proceeds from their own generosity, to recompence their husbands for the confidence they put in them, or has its foundation only in fame, we cannot determine. Their religion is Paganism; for, notwithstanding they use circumcision among them, they have neither priest, alcoran, nor mosque, like other Mahometans. Every body here offers his own sacrifice at pleasure, which is an he-goat; offered by roasting and boiling the flesh, which they afterwards eat. The women and children smoke tobacco as well as the men; and this is the most acceptable commodity which a traveller can carry with him into the Tartar countries. Here are no public inns, which indeed are unnecessary; for so great is the hospitality of the people, that they will contend with each other who shall entertain any stranger that happens to come among them.---The principal branch of their traffic is their own children, especially their daughters, whom they sell for the use of the seraglios in Turkey and Persia, where they frequently marry to great advantage, and make the fortune of their families. The merchants who come from Constantinople to purchase these girls are generally Jews, who, as well as the mothers, are said to be extremely careful of preserving the chastity of the young women, knowing the value that is set by the Turks upon the marks of virginity.

Tavernier also informs us, that the women of Comania and Circassia, like those of Georgia, are very handsome and beautiful; that they retain the freshness of their complexion till the age of forty-five, or fifty; that they are all very industrious, and often employed in the most laborious offices. These people have preserved uncommon liberties in their laws regarding marriage. If a husband is not pleased with his wife, and makes the first complaint, the seigneur of the district sends for the wife, sells her, and provides the husband with another. The wife, if she makes the first complaint, enjoys the same privilege.

The Mingrelians, according to the relations of different travellers, are nearly as handsome as the Georgians or Circassians, and they seem to be the same race of people. "In Mingrelia," says Sir John Chardin, "there are women extremely handsome, of a majestic air, whose form and visage are enchanting, and their aspect attracts every beholder. Those who are less handsome, or advanced in years, daub their eye-brows, cheeks, forehead, nose, and chin, with coarse paint. Others paint their eye-brows only, and bestow much attention to their dress, which is similar to that of the Persians. They wear a veil, which covers only the crown and back part of the head. Though lively, civil, and affectionate, they are extremely perfidious; and there is no wickedness which they will not perpetrate, in order to procure, to preserve, or to get rid of, their gallants. The men have likewise many bad qualities; they are all trained to robbery, which they study both as a business and an amusement. They relate, with extreme satisfaction, the depredations they have committed, and derive from this polluted source their greatest praise and honour. In Mingrelia, falsehood and theft are good actions; and fornication, bigamy, and incest, are virtuous habits. A man marries two or three wives at a time, and keeps as many concubines as he chooses. Husbands in this country

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are not jealous of their wives ; and, when a wife is detected in the act of infidelity, he has only a right to demand a pig from the gallant, who generally eats a share of it in company with the husband and wife. They marry their neices, aunts, or other relations, indifferently ; and they not only make a common practice of selling their children, but even murder them, or bury them alive, when they find it difficult to bring them up. The common people use a sort of paste, made of a plant called gom, instead of bread ; but that of the better sort consists of wheat, barley, or rice. The gentry have an absolute power over their vassals, which extends to life, liberty, and estate. Their arms are the bow and arrow, the lance, the sabre or broad-sword, and the buckler. They are in general very nasty ; and eat sitting cross-legged upon a carpet, like the Persians ; but the poorer sort upon a mat or bench, in the same posture. To have many wives and concubines they pretend to be a good and laudable practice, because it enables them to beget the more children, whom they sell for gold, or exchange for wares and provisions." The Mingrelian slaves, of whom it is said upwards of 12,000 are sold annually to the Turks and Persians, are not very dear. A man, from twenty-five to forty years, may be purchased for fifteen crowns ; and, when farther advanced, for eight or ten. The finest girls, from thirteen to eighteen, cost only twenty crowns, a woman about twelve crowns, and children only three or four.

The Turks, who purchase vast numbers of these slaves, are so blended with the Armenians, Georgians, Arabians, Egyptians, and even with the Europeans, that it is impossible to distinguish the real natives of Asia Minor, Syria, and the rest of Turkey. In general, the Turks are robust, and tolerably well made ; and crooked or deformed persons are rarely to be met with among them. Most of their women are likewise handsome and beautiful ; they are also very fair, because

cause they seldom go abroad, and never without being covered with a veil.

"There is not," says Belon, "a woman in Asia, however mean her condition, who has not a complexion fresh as a rose, and whose skin is not fair, delicate, and smooth as velvet: they make an unguent of Chian earth, with which they anoint their whole bodies before they go to bathe. Some likewise paint their eye-brows of a black colour; while others eradicate the hairs with rusma, and paint artificial eye-brows in the form of a black crescent, which have a beautiful appearance at a distance, but very ugly when viewed more closely. This custom, however, is extremely ancient." He adds, that, in Turkey, neither men nor women wear hair on any part of the body, except the head and chin; that they make an ointment, composed of equal quantities of rusma and quick lime, diluted in water, which they apply before they enter the warm bath; that, when they begin to sweat in the bath, the hairs fall off by simple rubbing with the hand, and the skin remains soft and smooth, without the least vestige of hair on it: He farther remarks, that, in Egypt, there is a shrub called alcanna, the leaves of which, when dried and pounded, make a yellow reddish paint, and with which the Turkish women tinge their hands, feet, and hair. With the same substance they paint the hair of their children, and the manes of their horses. The women of Turkey likewise use a preparation of tutty to render their eyes of a deeper black. They bathe often, use perfumes, and employ every art to preserve and improve their beauty. The Persian women are said to be still more anxious on this subject than the Turks. The men have also different tastes with regard to beauty; the Persians are fond of brown complexions, and the Turks prefer the red.

It has been alledged, that the Jews, who came originally from Syria and Palestine, still preserve their former darkness of complexion. But, as is properly
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remarked by Miffon, the Jews of Portugal alone are tawny, because, by constantly marrying those of their own tribe, the children of these people always resemble their parents, and the tawny colour is thus perpetuated, with little diminution, even in the northern countries. The Jews of Germany, however, as those of Prague, for example, are not more swarthy than the other inhabitants of that country.

The present natives of Judea resemble the other Turks; but they are more swarthy than those who live in Constantinople, or on the coasts of the Black Sea; in the same manner as the Arabians are browner than the Syrians, because they inhabit a more southern climate. The same observation is applicable to the Greeks; the inhabitants of the north are fairer than those of the islands or of the southern provinces. In general, the Greek women are handsomer and more vivacious than the Turks. They have likewise the advantage of enjoying a greater degree of liberty. Gemelli Carreri informs us, that the women of the island of Chio are fair, beautiful, lively, and very familiar with the men; that the young girls see strangers without restraint; and that they all go with their necks uncovered. He likewise remarks, that the Greek women, especially in the neighbourhood of Constantinople, have extremely fine hair; but that those whose hair descends to their heels are less regular in their features. The Greeks esteem large eyes and high eye-brows as great points of beauty in either sex; and it is worthy of remark, that, in all the busts and medals of the ancient Greeks, the eyes are much larger than in those of the ancient Romans.

The inhabitants of the Archipelago are remarkably fine swimmers and divers. Thevenot tells us, that they exercise themselves in bringing up sponges, and even lost goods, from the bottom of the sea; and that, in the island of Samos, a young man cannot obtain a wife, unless he be able to dive at least eight, or, according

ing to Dapper, twenty, fathoms. The latter adds, that, in some of the islands, as that of Nicaria, they have a strange practice of conversing with each other at great distances; and that their voices are so strong, that, at the distance of a quarter of a league, and sometimes of a whole league, those islanders can maintain a conversation, which is necessarily interrupted by long intervals, the answer not arriving for several seconds after the question.

The Greeks, the Neapolitans, the Sicilians, the Corsicans, the Sardinians, and the Spaniards, being situated nearly under the same latitude, are very similar in their complexions. All these people are more swarthy than the English, the French, the Germans, the Polanders, the Moldavians, the Circassians, and all the other inhabitants of the northern parts of Europe, till we advance to Lapland, where, as formerly remarked, we meet with another race of men. In travelling through Spain, a difference of colour is perceptible even at Bayonne; there the complexion of the women is browner, and their eyes are more brilliant. The Spaniards, though thin, are handsome. Their features are regular, their eyes beautiful, and their teeth well arranged: but their complexion is yellow and swarthy. Their children are born fair and beautiful; but, as they grow up, their colour changes in a surprising manner: the operation of the air and of the sun soon renders them so yellow and tawny, that a Spaniard is easily distinguished from a native of any other country in Europe. In some provinces of Spain, as in the environs of the river Bidassao, it has been remarked, that the inhabitants have ears of an uncommon size.

Black or brown hair, similar to the Indians, begins to be unfrequent in Britain, in Flanders, in Holland, and in the northern provinces of Germany; and in Denmark, Sweden, and Poland, it is seldom to be met with. Linnæus informs us, that the Goths are
tall;

tall; that their hair is straight, and as white as silver; and that the iris of the eye is blueish. The Finlanders, he adds, are muscular and fleshy; their hair is long, and of a whitish yellow colour; and the iris of the eye is of a deep yellow.

The women of Sweden are very prolific. Rudbeck says, that they generally bring forth eight, ten, or twelve, children; and that eighteen, twenty, twenty-four, and even thirty, are not uncommon. He adds, that the men often exceed the age of one hundred years; that some arrive at one hundred and forty; and that one Swede lived one hundred and fifty-six, and another one hundred and sixty-one, years. But this author, it must be allowed, is an enthusiast with regard to his country; and, in his estimation, Sweden is the best country in the world. This extraordinary fertility in the Swedish women implies not an uncommon propensity to love. Mankind are more chaste in cold than in hot climates. Though the women of Sweden are less amorous than those of Spain or Portugal, yet they bring forth more children. The northern nations, it is well known, have over-run all Europe to such a degree, that historians have distinguished the North by the appellation of "*Officina Gentium*."

The author of the *Historical Voyages of Europe* agrees with Rudbeck, that the Swedes live longer than any other people in Europe; and adds, that he saw several men who, he was assured, had exceeded their one hundred and fiftieth year. This longevity of the Swedes he ascribes to the salubrity of the air. He makes the same remark with regard to Denmark: the Danes, he says, are tall and robust, of a lively and florid complexion, and, on account of the salubrity of the air they respire, live very long: the Danish women are fair, handsome, and extremely prolific.

The general character of the Danes, however, is a strange composition of pride and meanness, insolence

and poverty. If any gentleman can find a purchaser for his estate, the king, by the Danish laws, has a right to one third of the purchase-money; but the lands are so burdened with impositions, that there would be no danger of alienation, even though this restriction were not in force. Nay, some gentlemen in the island of Zealand have actually offered to make a surrender to the king of large tracts of very fertile land, if his majesty would be pleased to accept of them in place of the impositions laid on them. The reason of this is, because, by the law of Denmark, if any estate is burdened beyond what it can bear, the owner must make up the deficiency out of his other fortune or estates, if he has any. Hence the king generally refuses such offers; and some gentlemen have been transported with joy when they heard that his majesty had been "graciously pleased to accept their whole estates."

This oppression of the nobles by the king produces in them a like disposition to oppress the commons; and the consequence is, that there is no part of the world where extravagance and dissipation reign to such a degree. The courtiers maintain splendid equipages, wear fine clothes, drink a vast quantity of French wine, and indulge themselves with eating to excess. Such as derive money from their employments, instead of purchasing land in Denmark, remit their cash to the banks of Hamburgh and Amsterdam. The merchants and burghers tread in the steps of their superiors; they spend all their gains in luxury and pleasure, afraid of incurring the suspicion of affluence, and being stripped by taxation. The peasant, or boor, follows the same example. No sooner has he earned a rix-dollar, than he makes haste to expend it in brandy, lest it should fall into the hands of his oppressive landlord. This lower class of people are as absolute slaves as the negroes in the West Indies, and subsist upon much harder fare. The value of estates is not computed by the number of acres, but by the stock of
boors,

boors, who, like the timber, are reckoned a parcel of the freehold; and nothing can be more wretched than the state of these boors.

In Denmark, all persons of any rank above the vulgar dress in the French taste, and affect finery; the winter-dress of the ladies is peculiar to the country, very neat, warm, and becoming. The common people are likewise remarkably neat, and pride themselves in different changes of linen. They are very little addicted to jollity and diversion; their whole amusements consist in running at the goose on Shrove Tuesday, and in winter in being drawn in sleds upon the ice. With respect to marriage, the man and woman frequently cohabit together on contract long before the ceremony is performed. The nobility and gentry pique themselves on sumptuous burials and monuments for the dead: the corpse is very often kept in a vault, or in the chancel of a church, for several years, before an opportunity offers of celebrating the funeral.

Previous to the reign of the Czar Peter I. the Russians were almost entirely barbarous. Born in slavery, they were ignorant, brutal, cruel, and had neither courage nor manners. Men and women often bathed promiscuously in baths heated to a degree that would have been insupportable to any other people; and, like the Laplanders, immediately after coming out of these hot baths, they plunged themselves into cold water. Their food was extremely coarse. Cucumbers or melons, which they brought from Astracan, and preserved during the summer, in a mixture of water, flour, and salt, were their favourite dishes. Some absurd scruples prevented them from eating particular meats, as pigeons and veal. But, even at this unrefined period, the women knew the arts of colouring their cheeks, pulling out their eye-brows, and painting artificial ones. They also adorned themselves with jewels and pearls, and their garments were made of valuable stuffs. Is it not apparent, from these circumstances,

cumstances, that the barbarity of the Russians had already begun to decay, and that their sovereign had not such amazing difficulties in polishing them as some authors are desirous of insinuating? They are now a civilized and commercial people; they are fond of the arts and sciences, of public spectacles, and of ingenious novelties. Such important changes cannot be produced by a great man; but a great man may be born in a fortunate moment.

It has been alledged by some authors, that the air of Muscovy is so salubrious as to prevent the existence of pestilential contagion. It is recorded, however, in their own annals, that, in 1421, and during the six subsequent years, the Muscovites were so dreadfully afflicted with contagious distempers, that the constitution of their descendants suffered a considerable change. Before that æra, many men lived above one hundred years; but very few now arrive at that age. The Ingrians and Carelians, who inhabit the northern provinces of Muscovy, and are the natives of the country round Petersburg, have vigorous and robust constitutions. Most of them have white or fair hair. They resemble the Finlanders, and speak the same language, which has no affinity to any of the other European tongues.

From the above historical account of all the inhabitants of Europe and Asia, it is apparent, that the differences in colour depend much, though not entirely, upon the climates. There are many other causes which have an influence upon the colour, and even upon the features and corporeal form, of different people. The nature of the food is one of the principal causes; and we shall afterwards consider the changes it may produce. Manners, or the mode of living, may also have considerable effects. A polished people, who are accustomed to an easy, regular, and tranquil, mode of life, and who, by the vigilance of a wise government, are removed from the dread of oppression and misery,

will,

will, for these reasons alone, be more strong, vigorous, and handsome, than savage and lawless nations, where every individual, deriving no succours from society, is obliged to provide for his own subsistence, to suffer alternately the pangs arising from hunger, and from surfeits from unwholesome food, to sink under the fatigues of hard labour, to feel the rigours of a severe climate, without possessing the means of alleviating them; to act in a word, more frequently like a brute than a man. Supposing two nations, thus differently circumstanced, to live under the same climate, it is reasonable to think, the savage people would be more awkward, more tawny, more diminutive, and more wrinkled, than the nation that enjoyed the advantages of society and civilization. If the former had any superiority over the latter, it would consist in the strength, or rather in the hardness, of their bodies. Among the savage people, there might likewise be fewer examples of lameness, and of other bodily impediments or deformities. Such men can live, and even multiply, in a polished state, where each individual contributes to the support of his neighbour, where the strong injure not the feeble, and where the qualities of the body are less esteemed than those of the mind. But, among a savage people, as every individual must subsist and defend himself by corporeal strength and address alone, those who unfortunately come into the world with deformed bodies, or feeble constitutions, fall early victims to the defects of nature.

Three causes, therefore, must be admitted as concurring in the production of those varieties which we have remarked among the different nations of the earth: 1. The influence of climate; 2. Food, which has a great dependence on climate; and, 3. Manners, on which climate has, perhaps, a still greater influence. But, before we attempt to establish this opinion by reasoning, it will be necessary to give as minute a description of the inhabitants of Africa and America as we have already given of those of Europe and Asia.

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We have already mentioned the different nations who inhabit the northern parts of Africa, from the Mediterranean to the Tropic. All those beyond the Tropic, from the Red Sea to the Ocean, an extent of country about one hundred and fifty leagues wide, are a species of Moors, though so swarthy, that they appear to be almost black. The men, in particular, are exceedingly brown; the women are a little fairer, well made, and tolerably beautiful. Among those Moors, there is a vast number of Mulattoes, who are of a still deeper black; because they are born of negro women whom the Moors purchase, and with whom they have many children. Beyond this territory, under the seventeenth or eighteenth degree of north latitude, we find the negroes of Senegal and Nubia, both on the coast of the western ocean and that of the Red Sea; and then, from the eighteenth degree of north to the eighteenth of south latitude, the whole inhabitants of Africa, except the Ethiopians or Abyssinians, are perfectly black. Thus the portion of the globe allotted by nature to this race of men, contains an extent of territory, parallel to the equator, of about nine hundred leagues in breadth, and considerably more in length, especially northward of the equinoctial line. But, beyond the eighteenth or twentieth degree of south latitude, the natives are no longer negroes, as shall be evinced when we describe the Cafres and Hottentots.

We have long been deceived with regard to the colour and features of the Ethiopians, because they have been confounded with their neighbours the Nubians, who are a different race of people. Marmol tells us, that the Ethiopians are perfectly black, and that they have large faces and flat noses; and the Dutch travellers give the same description of these people. The truth, however, is, that the Ethiopians differ from the Nubians both in colour and features. The natural colour
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of the Ethiopians is brown or olive, like that of the southern Arabs, from whom they probably derive their origin. They are tall, and have regular features, fine eyes, well-proportioned noses, thin lips, and white teeth. But the Nubians have flat noses, thick prominent lips, and their visages are extremely black. These Nubians, like their western neighbours, are a species of Negroes, very similar to those of Senegal.

The Ethiopians are a half-polished people. They wear garments of cotton and silk. Their houses are low and ill-built. In the culture of their lands they are extremely negligent; because the citizens and common people are despised, oppressed, and plundered, by the nobles. Each of these classes lives separate from one another in their own villages or hamlets. Their country produces no salt, and the people purchase it for an equal weight of gold. They are fond of crude meat; and, in their feasts, the second course, which they regard as the most delicate, consists of flesh entirely raw. Though they have vines, they make no wine; and their only beverage is a sour composition of tamarinds and water. They travel on horses, and use mules for transporting their merchandise. Their knowledge of the arts and sciences is extremely limited; for their language is without rule, and their manner of writing is so imperfect, that they require several days to write a letter, though their characters are more beautiful than those of the Arabians. Their mode of salutation is singular: they take one another by the right hand, and mutually apply it to their mouths; the saluter then takes off the scarf of the person he salutes, and wraps it round his own body, by which the other is left half naked; for most of the Ethiopians wear only this scarf and a pair of cotton drawers.

Diodorus Siculus describes many Ethiopian nations, some of which cultivated the tracts on each side of the Nile, and the islands in the middle of it; others inhabited

habited Abyssinia, and the provinces bordering on Arabia; and others lived more towards the center of Africa. All these people, and among the rest those who were born on the banks of the river, had flat noses, black skins, and woolly hair. They had a very savage and ferocious appearance; they were more brutal in their customs than in their nature. They were of a dry adust temperament; and their nails in length resembled claws: they were ignorant of the arts which polish the mind; their language was hardly articulate; their voices were shrill and piercing. As they did not endeavour to render life more commodious and agreeable, their manners and customs were very different from those of other nations. When they went to battle, some were armed with bucklers of ox's hide, with little javelins in their hands; others carried crooked darts; others used the bow; and others fought with clubs. They took their wives with them to war, whom they obliged to enter upon military service at a certain age. The women wore rings of copper at their lips.

These Ethiopians differed likewise from other nations in the honours which they paid to their dead. Some threw their bodies into the river, thinking that the most honourable sepulchre. Others kept them in their houses in niches: thinking that their children would be stimulated to virtuous deeds by the sight of their ancestors; and that grown people, by the same objects, would retain their parents in their memory. Others put their dead bodies into coffins of earthenware, and buried them near their temples. To swear with the hand laid upon a corpse, was their most sacred and inviolable oath. The savage Ethiopians of some districts gave their crown to him who of all their nation was best made. Their reason for that preference was, that the two first gifts of heaven were monarchy and a fine person. In other territories, they conferred the sovereignty on the most vigilant shepherd; for he, they
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alleged,

alleged, would be the most careful guardian of his subjects. Others chose the richest man for their king; for he, they thought, would have it most in his power to do good to his subjects. Others, again, chose the strongest; esteeming those most worthy of the first dignity who were ablest to defend them in battle.

With regard to the manners of the Abyssinians, they are represented by Mr. Bruce in his Travels, lately published, as highly barbarous. Their continual warfare inures them to blood from their infancy; so that even children would not have the least scruple at killing one another, or grown-up persons, if they were able. Many shocking instances of hardness of heart are related of them. Their cruelty displays itself abundantly in the punishments inflicted upon criminals, one of which is flaying alive; cutting in pieces with a sabre is another; and this is performed, not by executioners, whose employment is reckoned disgraceful, as in this country, but by officers and people of quality. So little is this thought of in Gondar, the capital of Abyssinia, that Mr. Bruce happening to pass by an officer employed in this work, who had three men to dispatch, the officer called to him to stop till he had killed them all, as he wanted to speak to him upon a matter of consequence. Stoning to death is a capital punishment likewise common in this country; and usually inflicted on Roman Catholics if they happen to be found, or upon other heretics in religion, as they term them.

It is not to be supposed that people who regard the lives of one another so little will shew much compassion to the brute creation. In this respect, however, the Abyssinians are cruel and savage beyond all people on the face of the earth. There are many instances of people eating raw fish or flesh, and we call them barbarous that do so; but what name shall we give to those who cut off pieces of flesh from animals while still living, and eat it not only raw, but still qui-

vering with life! Mr. Bruce also says, that this way of eating not raw, but living, flesh, was customary among the nations of antiquity. He informs us, that when he was at no great distance from Axum, the capital of Tigre, he fell in with three of the natives driving a cow. They halted at a brook, threw down the beast, and one of them cut a pretty large collop of flesh from its buttock; after eating which, they drove the cow gently on as before. In his description of their feasts he says, the animal is tied so that it cannot move: after stripping off the skin, the flesh of the buttocks is cut off in solid square pieces, without bones or much effusion of blood; and the prodigious noise the animal makes is a signal for the company to sit down to table. Every man sits between two women, having a long knife in his hand. With this he cuts the flesh, while the motion of its fibres is yet visible, into pieces like dice. These are laid upon pieces of bread made of the grain called teff, being strongly powdered with Cayenne pepper and fossile salt. They are then rolled up like so many cartridges; the men open their mouths, stooping and gaping like idiots, while the women cram them so full of these cartridges, that they seem every moment in danger of being choked; and in proportion to the quantity their mouths can hold, and the noise they make in chewing, they are held in estimation by the company. All this time the animal bleeds but little: but, when the large arteries are cut and it expires, the flesh becomes tough; and the wretches who have the rest to eat gnaw it from the bones like dogs!

In Ethiopia, and in that tract of land which stretches to Cape Gardufu, there are vast deserts. This country, which may be regarded as the most easterly part of Ethiopia, is almost entirely uninhabited. To the south, Ethiopia is bounded by the Bedouins, or wild Arabs, and some other nations, who observe the Mahometan law; a circumstance which corroborates the opinion,

opinion, that the Ethiopians have originated from the Arabians. These two people are only separated by the Straits of Babelmandel. It is probable, therefore, that the Arabians had formerly invaded Ethiopia, and obliged the natives of that country to retire to the northern parts of Nubia. The Arabians have even spread themselves along the coasts of Melinda; for the inhabitants of those coasts are only tawny, and follow the religion of Mahomet. Even in Zanguebar, the natives are not black; most of them speak the Arabic language; and they wear cotton stuffs. This country, though under the torrid zone, is not so excessively hot as might be expected; and the hair of the natives is black and crisped like that of the negroes. Upon the whole of this coast, as well as at Mosambique and Madagascar, we meet with some white men, who, it is alledged, came originally from China, and settled there, when the Chinese were accustomed to sail over the eastern seas, in the same manner as they are now navigated by the Europeans. Though this opinion be problematical, it is certain that the nations of this eastern coast of Africa are black, and that the tawny or white people found there have come from other countries.

But to form a just idea of the varieties which occur among these black nations requires a more minute examination.---From comparing the testimonies of travellers, it, in the first place, appears, that the varieties among the blacks are equally numerous as those among the whites. The blacks, as well as the whites, have their Tartars and Circassians. The natives of Guinea are extremely ugly, and have an insufferable odour; those of Sofala and of Mosambique are handsome, and have no bad smell. It is, therefore, necessary to divide the blacks into different races; and, I think, they may be reduced to two principal races, that of the negroes, and that of the caffres. Under the first I

comprehend the blacks of Nubia, of Senegal, of Cape Verd, of Gambia, of Sierra Leona, of the Teeth and Gold Coasts, of that of Juda, Benin, Gabon, Loango, Congo, Angola, and of Benguela, as far as Cape Negro. Under the second I include all the nations from Cape Negro to the point of Africa, where they assume the name of Hottentots, and all those on the eastern coast, within the same latitude, as the territories of Natal, of Sofala, of Monomotapa, of Mosambique, of Melinda: the blacks of Madagascar, and of the neighbouring islands, are likewise caffres, and not negroes. These two races of men have a greater resemblance to each other in colour, than in their features, hair, skin, or smell: their manners and natural dispositions are likewise very different. On a closer examination of the different people of which each of these races consist, we shall find as many varieties among the blacks as among the whites, and an equal number of shades from brown to black as we have found from brown to white in the other race.

We shall begin with the countries to the north of Senegal, and, proceeding along the coasts, we shall consider the different nations which have been recognised and described by travellers. In the first place, it is certain, that the natives of the Canary islands are not negroes; for we are assured by voyagers, that the ancient inhabitants of these islands were tall, well-made, and of a vigorous complexion; that the women were handsome, and had fine hair; and that the inhabitants of the southern parts of each island were more olive-coloured than those on the northern parts. Duret, in the history of his voyage to Lima, informs us, that the ancient inhabitants of the island of Teneriffe were tall and robust, but meagre and tawny, and that most of them had flat noses. These people, we see, had nothing in common with the negroes, except the flat nose. The natives of Africa, in the same latitude with these islands, are Moors, and very tawny; but,
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like the islanders, they evidently belong to the race of whites.

The inhabitants of Cape Blanc are Moors, and follow the religion of Mahomet. Like the Arabs, they wander about from place to place, pasturing their horses, camels, oxen, goats, and sheep. They trade with the negroes, who give them eight or ten slaves for a horse, and two or three for a camel. It is from these Moors that we have the gum Arabic, which they dissolve among their milk. They seldom eat flesh, and never kill their cattle but when they are about to die of old age or disease.

The Moors are separated from the negroes by the river Senegal. They are only tawny, and live on the north side of this river; but the negroes who inhabit the south side of it are absolutely black. The Moors lead a pastoral life, and wander through the country; but the negroes are sedentary, and dwell in villages. The former are free and independent; the latter are the slaves of tyrants, who oppress them. The Moors are small, meagre, and have a pusillanimous aspect; but they are sly and ingenious. The negroes, on the contrary, are large, plump, and well made; but they are simple and stupid. In fine, the country inhabited by the Moors consists of barren sands, where verdure appears only in very few places. But the negro country is rich, fertile in pasture, and produces millet, and trees which are always green, but few of them bear fruit fit for food.

In some places, both on the north and south of the river Senegal, there is a species of men called Foulies, who seem to form the shade between the Moors and negroes, and who are, perhaps, Mulattoes, produced by a mixture of the two nations. These foulies are not entirely black, like the negroes; but they are much browner than the Moors, and hold the middle rank between the two. They are likewise more advanced
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in civilization than the negroes ; they follow the religion of Mahomet, and are hospitable to strangers.

The Cape-de-Verd islands are peopled with Mulattoes, sprung from the Portuguese who first settled there and the negroes whom they found on these islands. They are called copper-coloured negroes, because, though they resemble the negroes in their features, they are less black, or rather yellowish. They are handsome and ingenious, but extremely indolent and idle. They live chiefly by hunting and fishing. They train their dogs to kill the wild goats, with which the islands abound. They deliver their wives and daughters to the embraces of strangers, if they choose to pay for this singular favour. For pins and other trifles, they sell paroquets, porcelain-shells, ambergris, &c.

The first genuine negroes we meet with are those on the southern banks of the Senegal. These people, as well as those who inhabit the country comprehended between this river and that of Gambia, call themselves Jaloffs. They are very black, handsome, of a fine stature, and their features are not so disagreeable as those of the other negroes. Some of them, particularly the women, have very regular features. They have the same ideas of beauty with the Europeans ; for they are fond of fine eyes, a small mouth, thin lips, and a well-proportioned nose ; they differ only with regard to the basis of the picture, a very black shining colour being absolutely necessary to form a beauty : their skin is very fine and soft ; and, abstracting from colour, they have as beautiful women as are to be met with in any other country in the world. Their females are generally handsome, gay, active, and extremely amorous : they are peculiarly fond of white men, whom they caress with ardour, both to satisfy themselves and in hopes of obtaining presents. In their attachments, they meet with no restraint from their husbands. But, though they offer their wives, daughters, and sisters, to strangers,

gers, and conceive their honour to be injured by a refusal, their jealousy rises to a high pitch when their wives transgress with men of their own nation. Those women, notwithstanding, have the tobacco-pipe perpetually in their mouths, and their skin, when they are heated, has a disagreeable smell, though it is not so strong as that of the other negroes. They love dancing to the sound of the drum and calabash. All their movements in these dances consist of lascivious and indecent postures. They bathe often; and file their teeth in order to render them more equal. Most of the young girls engrave figures of animals, flowers, &c. on their skins.

It is a general practice among the negro women, when travelling, to carry their children on their backs. Some have ascribed the flat nose and big bellies of the negroes to this cause: the mother, in raising the child by sudden jerks, makes the child's nose strike against her back; and the child, to avoid these frequent blows, keeps its head as far back as possible, by pushing its belly forward. Their hair is black and crisped, like curled wool. It is by the hair and the colour that they chiefly differ from other men; for their features are not, perhaps, so different from those of the Europeans as the Tartarian visage differs from that of a Frenchman. Father Tertre affirms, that, if most of the negroes are flat-nosed, it is owing to a general practice of the mothers, who depress the noses of their children as soon as they come into the world, and squeeze their lips to make them thick; and that those children, who chance to escape these operations, have elevated noses, thin lips, as fine features as the Europeans. This remark, however, is only applicable to the negroes of Senegal, who are the most handsome and best-formed of all the race. Among all the other negroes, flat noses and thick lips seem to be features bestowed on them by nature: these, instead of deformities,

mities, are regarded as marks of beauty, and supplied by art when they happen to be denied by nature.

The negro women are extremely prolific: they bring forth their children with great ease, and require no assistance. Their labours are followed by no troublesome consequences; for their strength is fully restored by a day or at most two days repose. They make excellent nurses, and manage their children with great tenderness and affection. They are also more lively and alert than the men; and they even cultivate the virtues of discretion and temperance. Father Jaric informs us, that the Jaloff negro women, in order to accustom themselves to eat and speak little, fill their mouths with water in the morning, and keep it there till the hour of breakfast.

The negroes of the island of Goree, and of the Cape-de-Verd coast, like those on the banks of the Senegal, are well-made and extremely black. They are so fond of a black shining complexion, that they despise such as want this perfection, in the same manner as tawny men are despised by the Europeans. Though strong and robust, they are exceedingly indolent, and cultivate neither corn, wines, nor fruits. Fish and millet are their chief articles of food; and they seldom eat flesh. They compare the Europeans to horses, because they eat herbs. But they are so passionately fond of spirits, that they sell their children, their parents, and even themselves, for brandy. They go almost naked, having only a cotton garment which covers them from the middle to about one half of the thigh; and they alledge that the heat of the climate permits them not to wear any more. Their poverty and bad cheer, however, hinder them not from being both fat and contented. They believe their country to be the finest in the universe; and that they are the handsomest men in the world, because they are the blackest: if their women betrayed no attachment





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The Senegal Negro, male.

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tachment to white men, their colour would give them no uneasiness. In the interior part of the south side of Senegal, the country is rich and fertile, but the climate is so extremely hot, that the warmest summers in Europe are colder than the winters in Senegal. Here the inhabitants lead a pastoral life, and are still found in their native simplicity. They are the darkest and best-formed negroes in the world. The males go stark naked; but the females wear a short apron made of the bark of trees, cut into a kind of ornamental net-work, and tied round their middle. The better sort also wear a skin descending from the waste. They are so much addicted to venery, that the natural period of their lives seems to be very much abridged by it. They are upon the whole a fine race of people, tall, and well proportioned, with regular handsome features. Their hair is black, and finely frizzled; their eyes large, very black, and sparkling; their teeth beautifully white, and their average stature about five feet ten inches high. The women in general are much smaller, but are extremely well made, of a pleasing aspect, familiar, and extremely amorous. Their form is altogether so round, regular, and pleasing, that in Europe they would be considered perfect beauties, could their colour be converted to as delicate a white, as it is now a fine, smooth, soft, shining, jet black. The weapon principally used by the men, is a *massue*, or short javelin, which they throw with amazing force, and with such expertness and accuracy as to be certain of killing an animal, though in full speed, at the distance of fifty or sixty yards. The annexed plates of the Senegal negro, both male and female, are taken from correct drawings made on the spot, and they exhibit a just delineation of the blackest and handsomest negroes in the universe.

Though the negroes of Sierra Leona be not altogether so black as those of Senegal, they are not, however, as Struys alledges, of a reddish or tawny

colour. Like the Guinea negroes, they are of a black less deep than the natives of Senegal. The general custom among the negroes of Guinea and Sierra Leona, of painting their bodies with red and other colours, might deceive Struys. They likewise paint a ring round their eyes with white, yellow, or red, and make rays of different colours upon their faces; and, many of them cut, upon their skin, figures of plants and of animals. Their women are still more lascivious than those of Senegal. Both men and women keep their heads uncovered; and they shave or cut their hair, which is very short, in various modes. They wear ear-rings made of teeth, shells, horns, bits of wood, &c. which weigh three or four ounces. Some of them pierce their nostrils or their upper lip, for the purpose of suspending similar ornaments. Their garments consist of a kind of apron made of the bark of a tree, covered with apes skins; and to these skins they fix small bells. They sleep upon bull-rush mats: they eat fish, or flesh, when they can procure it; but yams and bananas are their principal food. They have no passion but for their women, and no inclination to activity or labour. Their houses are wretched huts. They often continue to live in wild and barren places, though in the neighbourhood of rich valleys, hills covered with trees, green and fertile fields, intersected in the most delightful manner with rivers and brooks. But their indolence and stupidity make them insensible to every pleasure of this nature. The roads which lead from one place to another are generally twice as long as they ought; but they attempt not to render them shorter; and, though the means were pointed out to them, they never think of taking the shortest road, but mechanically follow the beaten track, and are not anxious about losing time, which they have no mode of measuring.

Though the Guinea negroes enjoy good health, and have vigorous constitutions, they seldom reach
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old age. A negro of fifty years is a very old man. Their premature commerce with the women is, perhaps, the cause of the brevity of their lives. Their children, when very young, are allowed to commit every species of debauchery; and nothing is so rare among these people as to find a girl who can remember the time when she ceased to be a virgin.

The islands of St. Thomas, of Annobona, &c. are inhabited by negroes similar to those on the neighbouring continent; but their numbers are few; because the Europeans have chased them off, and retained only such as they reduced to slavery. Both men and women go naked, except a small apron round their middle. Mandelslo alledges, that the Europeans, who settled in the island of St. Thomas, which is but a degree and a half from the equator, preserve their whiteness till the third generation; and he seems to insinuate that they turn black after that period. But it is not probable that this change can be so suddenly effected.

The negroes on the coasts of Juda and Arada are less black than those of Senegal, Guinea, and Congo. They prefer the flesh of dogs to all other meat, a roasted dog being generally the first dish presented at their feasts. This taste is not peculiar to the negroes; the savages of North America, and some Tartarian nations, are equally fond of dog's flesh. The Tartars are even said to castrate dogs, in order to fatten them and improve their flesh.

Pigafetta, and Drake who seems to copy him verbatim, informs us, that the negroes of Congo are black, but less so than those of Senegal. Their hair is generally black and crisped, though in some it is red. The men are of a middle stature; in some, the eyes are brown; in others, they are of a sea-green colour. Their lips are not so thick as those of other negroes; and their features very much resemble those of the Europeans.

In certain provinces of Congo, they have very singular customs. When a person dies in Loango, for example, they place the corpse on a kind of amphitheatre, raised about six feet above the ground, and in a sitting posture, with the hands resting on the knees. They dress him in his best garments, and then kindle fires all round the body. In proportion as the clothes absorb the moisture, they cover him with fresh garments, till the body be perfectly dry: after which they bury him with great pomp. In the province of Malimba, the wife ennobles the husband. When the king dies and leaves only a single daughter, if she has arrived at the age of puberty, she becomes absolute mistress of the kingdom. She begins her reign by making a tour round her dominions. In all the towns and villages through which she passes, the whole of the men are obliged to appear before her, immediately upon her arrival, and she chooses the man whom she fancies most, to pass the night with her. At her return from her journey, she sends for the man who has been so fortunate as to please her best, and instantly marries him. After marriage her power terminates, and devolves entirely on her husband. These facts I have extracted from M. de la Brosse's Travels along the Coast of Angola in the year 1738. He adds a fact not less singular: "These negroes," says he, "are extremely vindictive, of which I shall give a convincing proof. They daily demanded of us some brandy for the use of the king and chief men of the town. One day this request was denied, and we had soon reason to repent it; for, all the French and English officers having gone a fishing on a small lake near the sea-coast, they erected a tent for the purpose of dressing and eating the fish they had caught. When they were amusing themselves after their repast, seven or eight negroes, who were the chiefs of Loango, arrived in sedans, and presented their hands, according to the custom of the country. These negroes pri-
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vately rubbed the officers hands with a subtle poison, which acts instantaneously; and, accordingly, five captains and three surgeons died on the spot," &c.

When the negroes of Congo have a pain in their head, or any other place of the body, they make a small wound in the place affected, and apply it to a small horn with a hole in its middle, by means of which they suck out the blood till the pain abates.

The negroes of Senegal, of Gambia, of Cape de Verd, of Angola, and of Congo, are of a finer black than those of the coasts of Juda, Iffigni, Arada, and the adjacent provinces. When in health, they are all black; but, when sick, they become yellowish, or copper-coloured. In the French islands, the negroes of Angola are preferred, for their strength, to those of Cape de Verd: but, when heated, they smell so rank, that the places they pass through are infected with the stench for more than a quarter of an hour. The Cape-de-Verd negroes do not smell so strong as those of Angola: they have also a finer and blacker skin; they are better made; their features are softer; their dispositions are more gentle, and their stature is more commodious. The negroes of Guinea are very proper for cultivating the ground and other laborious offices. Those of Senegal are not so strong; but they are more ingenious, and better adapted for domestic services. Father Charlevoix tells us, that the Senegal negroes are the most handsome, most docile, and best suited for domestic uses; that the Bambaras are larger, but that the Aradas are best acquainted with the culture of the earth; that the Congos are the smallest in size, and excellent fishers, but that they are much addicted to desertion; that the Nagos are the most humane, the Mondogos the most cruel, the Mimes the most resolute, most capricious, and most subject to despair; and that the Creol negroes, from whatever nations they derive their origin, retain nothing of their parents but the colour and the spirit of slavery.

slavery. They are more ingenious, rational, and dexterous, but more slothful and debauched, than the African negroes. He adds, that the genius of all the Guinea negroes is extremely limited; that some of them appear perfectly stupid, not being able to count beyond the number of three; that they never think spontaneously; that they have no memory, the past and the future being equally unknown to them; that the most sprightly of them have some humour, and make tolerable mimics; that they are extremely cunning, and that they would rather die than tell a secret; that, in general, they are gentle, humane, docile, simple, credulous, and even superstitious; and that they are faithful and brave, and, if properly disciplined, would make good soldiers.

Though the negroes have little genius, their feelings are extremely acute. According to the manner they are treated, they are gay or melancholy, laborious or slothful, friends or enemies. When well fed, and not maltreated, they are contented, joyous, ready for every employment, and the satisfaction of their mind is painted in their countenance. But, when oppressed and abused, they grow peevish, and often die of melancholy. Of benefits and abuse, they are exceedingly sensible, and against those who injure them they bear a mortal hatred. On the other hand, when they contract an affection to a master, there is no office, however hazardous, which they will not boldly execute, to demonstrate their zeal and attachment. They are naturally affectionate, and have an ardent love to their children, friends, and countrymen. The little they possess they freely distribute among the necessitous, without any other motive than that of pure compassion for the indigent. Yet it is from this country that slaves are furnished for all our European settlements, and where the traffic in human flesh disgraces humanity beyond all power of description. Mr. Moore, factor for the English African company, describes

scribes man-stealing and kidnapping in the following words: "Whenever the negro-king wants goods or brandy, he sends a messenger to the English governor at James-Fort, to desire he would send a sloop there with a cargo: this news being not at all unwelcome, the governor sends accordingly; against the arrival of the sloop, the king goes and ransacks some of his enemies towns, seizing the people, and selling them for such commodities as he is in want of, which are commonly brandy, guns, powder, balls, pistols, and cutlasses, for his attendants and soldiers; and coral and silver for his wives and concubines. In case he is not at war with any neighbouring king, he then falls upon one of his own towns, which are numerous, and uses them in the same manner. He often goes with some of his troops by a town in the day-time, and, returning in the night, sets fire to three parts of it, and, putting guards at the fourth, there seizes the people as they run out from the fire; he ties their arms behind them, and marches them either to Joar or Cohone, where he sells them to the Europeans."

He adds further, "That there are a number of negro traders, called joncoes, or merchants, who follow the slave-trade as a business; their place of residence is so high up the country as to be six weeks travel from James-Fort, which is situated at the mouth of the river Gambia. These merchants bring down elephants teeth, and in some years two thousand slaves. They buy them from the different princes who take them; many of them are Bumbrongs and Petcharies; nations who each of them have different languages, and are brought from a vast way inland. Their way of bringing them is tying them by the neck with leather thongs, at about a yard distant from each other, thirty or forty in a string, having generally a bundle of corn or elephants teeth upon each of their heads. In their way from the mountains, they travel through very great woods, where they cannot
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for some days get water; so they carry, in skin bags, enough to support them for a time. I cannot (adds Moore) be certain of the number of merchants who follow this trade, but there may, perhaps, be about one hundred, who go up into the inland country with the goods which they buy from the white men, and with them purchase, in various countries, gold, slaves, and elephants teeth. Besides the slaves which the merchants bring down, there are many bought along the river: these are either taken in war, as the former are, or men condemned for crimes; or else people stolen, which is very frequent.---Since the slave-trade has been used, all punishments are changed into slavery; there being an advantage on such condemnation, they strain for crimes very hard, in order to get the benefit of selling the criminal."

When the great income which arises to the negro-kings on the Slave Coast, from the slaves brought through their several governments to be shipped on-board the European vessels, is considered, we have no cause to wonder that they give so great a countenance to that trade. Bosman says, "That each ship which comes to Whidah to trade, reckoning one with another, either by toll, trade, or custom, pays about four hundred pounds, and sometimes fifty ships come hither in a year." Barbot confirms the same, and adds, "That in the neighbouring kingdom of Ardah, the duty to the king is the value of seventy or eighty slaves for each trading ship;" which is near half as much more as at Whidah. Nor can the Europeans concerned in the trade, with any degree of propriety, blame the African kings for countenancing it, while they continue to send vessels on purpose to take in the slaves which are thus stolen, and that they are permitted, under the sanction of national laws, to sell them to the colonies.

According to a late sensible writer, Mr. Ramsay, the annual British exports to these coasts are estimated

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at five hundred thousand pounds, including a considerable quantity that is annually exchanged with American and other foreign traders there; about fifty thousand pounds of this is returned in ivory, gold-dust, gum, &c. The greatest part of the profits of the slave-trade is raised on the sugar-plantations. If by establishing factories, and encouraging civilization on the coast of Africa, and returning some of our West-Indian slaves to their original country, we tried to make up for our past treachery to the natives, and instructed the inhabitants in the culture of tobacco, indigo, cotton, rice, &c. to barter with us for our manufactures, and supply us with those articles, our demand for which has been so advantageous to America, great would be our profits. Were Africa civilized, and could we pre-occupy the affections of the natives, and introduce gradually our religion, manners, and language, among them, we should open a market that would fully employ our manufacturers and seamen, morally speaking, till the end of time; and, while we enriched ourselves, we should contribute to their happiness. For Africa, in its highest probable state of culture, could not possibly interfere with the staple of Britain, so as to hinder an extensive and mutually-advantageous trade from being carried on between the countries. The great difference of climate and soil must always distinguish the supplies and wants of each. The slave-trade, indeed, has been long considered as disgraceful to an enlightened age; and, in this country, a spirit is arisen which seems bent on annihilating it altogether, or so changing the nature of it as to blend humanity with policy.

This traffic in human beings is not, however, without its advocates. But the most specious arguments of its ablest defenders reach no further than political expediency, which can never alter the real nature of things. That in question would not remain less an unjust, cruel, and wicked, trade, in its very nature essen-

tially and unalterably wrong. Its abolition, therefore, not in a rash but in as gentle and equitable a way as circumstances will allow, is devoutly to be wished, and it is hoped may be accomplished.

But to return to our subject. Of the inhabitants of the coasts and of the interior parts of Africa, from Cape Negro to Cape de Voltes, an extent of about four hundred leagues, we have but little knowledge. We only know that these men are less black than the other negroes, and that they resemble the Hottentots, with whom they border on the south. The Hottentots, on the contrary, are well known, and described by almost every voyager. They are not properly negroes, but Caffres, and would be of a tawny colour only, if they did not blacken their skin with grease and paint. M. Kolbe, who has given a very accurate description of these people, regards them, however, as negroes. He assures us, that they have all short, black, frizzled, woolly, hair; and that he never saw a single Hottentot with long hair. But this circumstance is not sufficient to make us consider them as genuine negroes. In the first place, their colour is totally different; for M. Kolbe tells us, that they are olive, and never black, though they employ every method to darken their skin. In the next place, it seems to be equally difficult to pronounce concerning their hair; for they never either comb or wash it, but daily rub on their heads vast quantities of grease, foot, and dust, which make their hair resemble a fleece of wool stuffed with dirt. Besides, their dispositions are different from those of the negroes. The latter are sedentary, love cleanliness, and are easily reconciled to servitude. The Hottentots, on the contrary, are a wandering independent people, extremely nasty, and jealous of their liberty. These differences are more than sufficient to convince us that the Hottentots are not of the same race with the negroes.

Gama,

Gama, who first doubled the Cape of Good Hope, describes the inhabitants as being black, of small stature, and having a very disagreeable aspect: but he says not that they were naturally black like the negroes; and, doubtless, they only seemed black to him by the grease and soot with which they are perpetually covered. This voyager adds, that the sound of their voice resembled sighing; that they were clothed in the skins of beasts; and that their arms were bludgeons hardened with the fire, and pointed with the horn of some animal. It is apparent, therefore, that the Hottentots practise no arts in common with the negroes.

We are informed by the Dutch voyagers, that the savages to the north of the Cape are smaller than the Europeans: that their colour is a reddish-brown; that they are extremely ugly, and endeavour to increase their blackness with paint; and that their hair resembles that of a man who has hung long on a gibbet. In another place they tell us, that the Hottentots are of the colour of Mulattoes; that their visage is greatly deformed; that they are of a middle size, but meagre, and exceedingly nimble in the chase; and that their language resembles the clucking of a turkey-cock. Father Tachard says, that though, in general, their hair be woolly, like that of the negroes, yet many of them have long hair, which floats upon their shoulders. He even adds, that some of them are almost as white as Europeans, but that they blacken their skin with grease, and the powder of a certain black stone; and that their women are naturally fair; but, to please their husbands, they paint themselves black. Ovington tells us, that the Hottentots are more tawny than the other Indians; that no people resemble the negroes more in colour and features, but that they are not so black; and their hair is not so crisped, nor their nose so flat.

From all these testimonies, it is plain that the Hottentots are not true negroes, but blacks beginning to

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approach towards whiteness, as the Moors are whites approaching to blackness. These Hottentots, moreover, are described by travellers as a very singular species of savages. Their women, who are commonly less than the men, have a kind of excrescence, or hard broad skin, which originates above the os pubis, and descends, like a flap or apron, to the middle of their thighs. Thevenot says the same thing of the Egyptian women, but that, instead of allowing this excrescence to grow, they burn it off with hot irons. With regard to the women of Egypt, the fact is doubtful. But it is certain that many women, who are natives of the Cape, possess this natural apron, which they uncover to those who have the curiosity to look at it. The men are all half eunuchs, not naturally, but by an absurd custom of cutting out one of the testicles about the age of eight years. M. Kolbe saw this operation performed on a young Hottentot. The circumstances with which this ceremony is accompanied are so singular that they deserve to be recited. After rubbing the young man with grease taken from the entrails of a sheep which is slain for the purpose, they lay him on his back on the ground, tie his hands and his feet, and three or four of his friends hold him. Then the priest, (for it is a religious rite,) armed with a sharp knife, makes an incision, and cuts away the left testicle, (Tavernier says the right,) and puts in its place a ball of grease of the same size, prepared with some medicinal herbs. He then sews up the wound with the bone of a small bird, which serves for a needle, and a thread made of the tendon of a sheep. The operation being thus finished, the patient is untied. But the priest, before quitting him, rubs him all over with the warm grease of a new-killed sheep, or rather pours the grease upon him so copiously, that, when cool, it forms a kind of crust. At the same time, he rubs him so roughly, that the young man, who has already suffered too much, is covered with sweat,

sweat, and fumes like a capon on the spit. The operator next makes furrows with his nails in this crust of grease, from one end of the body to another, and then urines upon them. After which, he again rubs the patient, and fills up the furrows with fresh grease. The young man is now instantly abandoned, and left alone in a condition rather resembling death than life: he is obliged to crawl, in the best manner he can, into a hut purposely erected near the place where the operation it performed. There he either perishes or recovers, without assistance, or any other nourishment than the grease that covers him, and which he may lick if he chooses. At the end of two days, he generally recovers, comes out of his hut, and presents himself to his friends: and, to prove that he is perfectly cured, he runs before them with the swiftness of a stag.

All the Hottentots have broad flat noses, which would not be the case, if their mothers did not flatten them immediately after birth; for they regard a prominent nose as a great deformity. They have also very thick lips, white teeth, bushy eye-brows, large heads, and meagre bodies. They seldom live above forty years. The short duration of their lives is unquestionably occasioned by the nastiness in which they wallow, and the putrid flesh on which they feed. The Dutch, says Tavernier, carried off a Hottentot girl a few days after her birth, brought her up among themselves, and she soon became almost as white as an European. From this fact he concludes, that all the Hottentots would be equally fair, if they did not perpetually daub themselves with soot and grease.

The latest and most authentic description of the Hottentots and Caffres appears to be given by Vailant, from whose travels the following particulars are transcribed: " Having, in my travels through Africa, fallen accidentally into a Hottentot family, where one of the women had that peculiar conformation of a natural

tural apron, just before mentioned, and which I had always considered as a fable, because I had never seen it, I was extremely desirous of clearing up this very interesting point of natural history, which for centuries past had so much divided the opinion of authors. The instant she was pointed out to me, I made her several presents, in order to prevail upon her to permit me to satisfy my curiosity. I had not to deal here with those dissolute Hottentot women of the colonies, always too much disposed to gratify, and even to anticipate, the desires of the white men and their scandalous fantasies. I had, on the contrary, reason to expect great difficulties; for I knew that savage women refuse that to curiosity which they grant to love---a delicate distinction, which people would not expect to find in a desert, when they carry thither with them their prejudices and all the bias of pride.

To the honour of these people I must here assert, and I ought to take every opportunity of doing so, that all my intreaties to obtain what I desired would have proved fruitless, had it not been for the assistance of one of my people, and assurances, twenty times repeated, to persuade this woman that I was a curious stranger, of a race very distinct, and who lived very remote, from her's. Upon this, she suffered her covering to be untied, and permitted me to contemplate at leisure what my readers will see themselves in the exact representation which I drew of it, and have given in the annexed plate.

To destroy an opinion, generally received, that nature has exclusively bestowed on the Hottentot women a natural apron, which serves to conceal the marks of their sex, a modern author asserts, that this singularity is nothing else but a prolongation of the nymphæ; and this idea has, very improperly, been adopted by many. He represents this apron almost as an infirmity, occasioned either by old age, the heat of the climate, an inactive life, or the use of greasy un-
tions,



The Female Hottentot, with natural Apron.



tions, &c. I should never have done, were I to mention all the objections that naturally arise to destroy this opinion. But let us not rack our imaginations with this singularity, which, as it is uncommon, has nothing extraordinary in it; and let us not seek to explain, as a phenomenon, what is only the effect of fashion and caprice. Yes, reader, this celebrated apron is only a fashion, an affair of taste, I will not say depraved, for signs of modesty can never constitute the essence of it; but original, extravagant, perhaps absurd, and such, that the sight of it only is sufficient to banish from the mind of the most dissipated libertine every idea of amorous enjoyment, and deceiving, in a new and too plain manner, the refinement of his wants, to make the most unbridled passion give place to laughter that could scarcely be suppressed. I wish to be decent, but I must at the same time pay a proper regard to truth. I cannot think of omitting in my work these circumstances of my travels; and, since my female Hottentot consented to improve my knowledge at the expence of her modesty, too much reserve on my part might be accounted childish bashfulness: scrupulous nicety is improper on a subject to which nature has attached no shame.

This natural apron is indeed nothing else, as the above author has said, than a prolongation of the nymphæ, or the large lips of the private parts of a woman. They may hang down about nine inches, more or less, according to the age of the person, or the assiduous care which is bestowed on this singular decoration. I saw a young girl of fifteen, in whom these parts were already four inches in length. Until they attain to that size, they are made to distend by friction, and by stretching them; but the remaining part of the process is performed by weights suspended from them. I have already said that this custom proceeds from a peculiar taste, a very uncommon caprice of fashion, and a refinement of coquetry. In
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the horde, in which I then was, only four women, and the young girl already mentioned, were in this ridiculous situation. Whoever has read Dionis, will readily comprehend how easily this operation may be performed; as for my part, I see nothing wonderful in it but the whimsicalness of the invention. Formerly, perhaps, whole families of savages, distinguished by this particularity, were to be met with even in those parts which at present belong to the colonies, and this, in all probability, has given birth to those errors which have been propagated on this subject; but the dispersion of a people soon destroys their ancient usages. This one is practised only in certain parts remote from one another, and by a few individuals attached by tradition to ancient manners, and who consider it as a merit still to observe them with the most scrupulous minuteness.

A physiognomist might divert himself by giving the Hottentot a place in the scale of being, between a human creature and an Ourang-Outang; but I cannot consent to do him that wrong, being sensible that he does not deserve to be so degraded. I must own his features are different from those of other men; the prominence of his cheek-bones make his face appear very broad in that part; this, contrasted with the narrowness of his jaw, which gradually lessens towards the chin, gives him an appearance of meagreness that makes his head seem disproportioned and too little for his body, which is in general flat and bulky. His nose is broad and flat, his nostrils very open, his mouth large, but filled with small teeth of an amazing whiteness, his eyes large and fine, inclining a little towards his nose, like the Chinese. His hair, both to the sight and touch, resembles wool, is black as ebony, and in no great quantity; yet they are continually thinning of it. His eye-brows, which are very scantily set, do not require that care. The beard only grows on the upper-lip, and on the extremity of the chin;

chin; this they never fail to pull out by the roots, which gives them an air of effeminacy.

The Hottentot is perfectly well made, his carriage graceful and active, very different from the savages of South America, who appear only the rough draughts of nature. The women, though more delicate, have the same features, are equally well made, their necks beautifully formed, their hands small, and their feet well shaped. They have a soft tone of voice, and their speech is not unpleasing. They make use of an infinity of gesture when they talk, which shews their arms to great advantage.

The natural timidity of the Hottentot prevents his being enterprising, while his *sang froid*, and deliberate method of speaking, gives him an air of reserve, even in his hours of joy and relaxation; when, on the contrary, all the other black or tawny nations give way to lively pleasure and the most expanded gaiety; careless to inaction and laziness, tending his flocks and procuring himself food is his only study. When he hunts he must not be considered as a sportsman, but as one oppressed with hunger; in short, he is forgetful of the past and regardless of the future, the present alone employs and interests his thoughts: but he is good, generous, and hospitable; those who travel among them are sure to find meat and lodging; they will receive you with pleasure, but never exact a recompense.

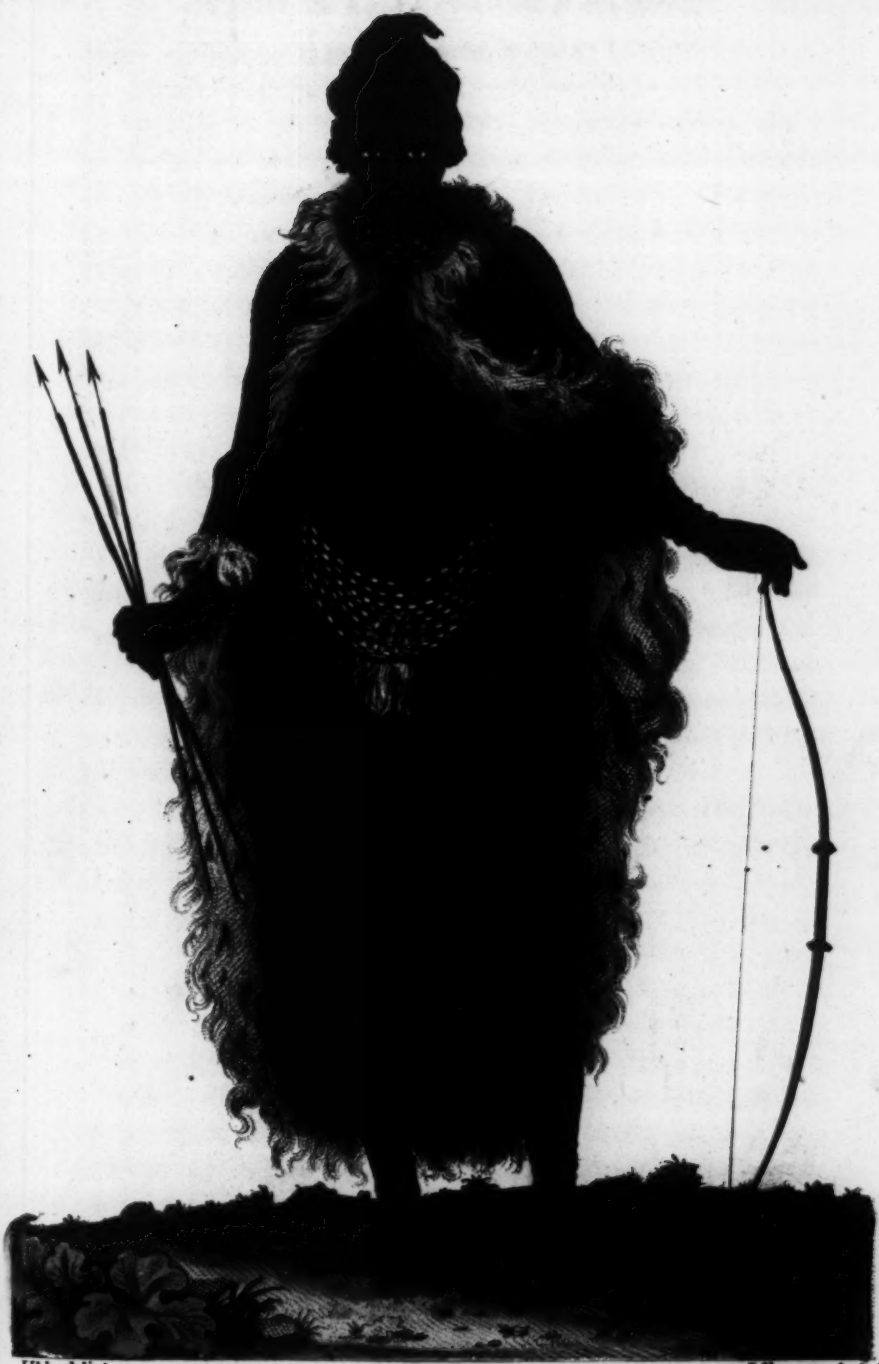
The dress of the Hottentot consists of a cloak made with the skin of some wild animal, or of a sheep or calf, which is called a *kros*. In the winter-season he wears the hairy side of his *kros* inward; and during the heat he turns it; they also wear a very small apron over the privities, called a *jackal*, suspended from several rows of beads or shells, which requires infinite pains in the preparation, and which they wear in great profusion round the neck and waist.

The Hottentot (except in very cold or rainy weather) goes bare-headed; his hair is often adorned with beads or feathers; some use bits of cut leather for this purpose, and others make caps out of the skin of some small quadruped, which they fasten on their foreheads. In general they wear sandals, which they fasten with leather thongs; they also ornament their legs and arms with bracelets of ivory; but these are not so much valued as those of thick brass wire; these they take great pains with, rubbing them often, until they are extremely well polished.

They are fond of hunting, and have great skill in it; independent of the snares spread for large game, they lay wait for and attack them with their *assagay*, or shoot them with poisoned arrows; these two are the only weapons they use: an animal wounded with the latter soon feels the effect of the poison, which coagulates the blood; though an elephant thus wounded has sometimes been found dead twenty or thirty leagues distant from the spot where he received the mortal blow.

As soon as the animal is dead, they cut off the wounded part, which they consider as dangerous, but the rest is not in any manner infected by the poison. The first time I inspected their arrows, I did not suppose them such deadly weapons; they are neither so long nor wound at such a distance as those the Caribbees use in America; but even their smallness renders them more dangerous; for, when shot, it is impossible for the eye to perceive their flight, consequently, there is no means to avoid them, and the smallest wound is always mortal if the poison reaches the blood; the only remedy is a speedy amputation of the wounded part, if in the limbs; but, if the wound is in the body, it is inevitable death.

These arrows are made of reeds, and very curiously formed; they are not above eighteen inches, or at most two feet long, while those of the Caribbees are six feet: at the end of the reed they fix a small bit of bone,



J. H. delin.

J. Chapman Sculp.

The Hottentot Man.

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bone, three or four inches in length, which they have previously rounded; this is smaller in diameter than the reed, and so slightly fixed in it, that when the arrow has entered the flesh the reed may be drawn away, while the bone still remains in the wound. To make it more deadly, it has a small barb of iron on one side, which, on the least motion, continues to lacerate the flesh, and renders every attempt to extract it abortive. This bone they anoint with a poison, that has the consistence of mastic; and it is usually pointed with a little angular head, extremely sharp, which altogether renders this weapon very terrible.

In each country, they have a particular manner of preparing their poison, according to the different noxious plants their soil produces, and from which they extract the juice. A particular species of serpent likewise supplies them with another kind, which the savages prefer, as being the most subtil. It is impossible to gain the least information of their manner of preparing the venom extracted from these serpents, it being a secret which they inviolably preserve.

The bows are proportioned to the arrows, being not above two feet and a half or at most three feet long; the string is made of the intestines of an animal. The assagay, or lance, in the hand of a Hottentot, is not a very certain weapon; even the length renders it less dangerous, as its course through the air may be readily seen, and easily avoided. Though they can throw this weapon a considerable way, they have little chance of hitting their mark when at above forty paces distance; and it is only in a close engagement that it is capable of doing any considerable execution. The use of this weapon is not well understood here, for the warrior that handles it with the greatest skill is easily disarmed. The Hottentots never carry more than one, and the embarrassment this occasions is a plain indication that it is by no means their favourite weapon; from whence we may conclude that the bow

and arrows are the natural and proper arms of the Hottentots.

The Hottentot is unacquainted even with the first elements of agriculture; he neither sows, plants, nor reaps; all that has been said of their manner of cultivating the earth, gathering the grain, or making of butter, can only regard the colonists, and the Hottentots they employ. The African drinks milk in its natural state: if they had any taste for agriculture, it would certainly begin with tobacco and the vine; for drinking and smoaking are the darling pleasures of both young and old.

The Hottentots are gluttonous as long as there is an abundance of provisions; but, in times of scarcity, they can be contented with a very little. In this respect I may compare them to hyænas, or other carnivorous animals, which devour all their prey in an instant, without thinking on the future; and which indeed remain several days without finding any nourishment, and are sometimes obliged to appease their hunger with clay. A Hottentot is capable of eating in one day ten or twelve pounds of meat; but, on pressing occasions, a few locusts, a piece of honeycomb, and often a bit of the leather of his sandals, will suffice him.

They sometimes make an intoxicating liquor composed of honey, and a root, which they leave to ferment in water; and makes a kind of mead; this liquor is not their ordinary drink; they never make any reserve of it, but drink it up at once.

They smoke a plant which is called *dagba*, (and not *daka*, as some authors have termed it;) this is the hemp of Europe; some of the colonists cultivate it, and when they have dried the leaves sell it very dear to the Hottentots, or exchange it for oxen; and there are those among them who prefer it to tobacco, but the greater part by choice mix them together.

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As soon as a Hottentot dies, he is wrapped in his worst kros, his legs being bent in such a manner as to be entirely covered with it; his relatives then carry him to a certain distance from the hoord, and lay him in a hole dug for that purpose, which is never deep; covering him with earth, and then with stones if it happens to be a situation where these can be procured. It is not to be imagined that such a tomb can withstand the efforts of the jackal or hyæna, and the body is often rooted up and devoured. When the chief of a hoord dies, the only difference observed in his funeral is, that the heap of earth and stones which cover his body is much larger.

The Hottentot women take a great deal more trouble than the men in regard to dress; they also wear the kros, but their aprons are larger, and wrought with a good deal of skill; in very hot weather they only wear this last habiliment, and a skin that descends from the loins to the calf of their legs. Young girls, until nine years old, go absolutely naked; after that age they wear an apron. The females in the interior parts have an appearance of care, and finery in their ornaments, unknown to the Hottentots of the colonies. There is no difference in the form of their habits, but the former wear them considerably larger than they are worn by the colonists. Their aprons which they call *neuyp kros* are tied round the waist and descend almost to their knees, and it is in the ornaments, I might say in the prodigious profusion of embroidery, or network, that is lavished on them, that consists the richness, the magnificence, on which they pride themselves. It is in the arrangement of this apron that the taste and smartness of the female Hottentot consists. The flourishes and compartments, the art with which the different colours are mingled and contrasted, in short, nothing is neglected which they think will render them pleasing to the eye. The more their habits are decorated with beads and shells, the more sumptuous they conceive

conceive themselves. Glass beads are held in the highest estimation, and constitute a principal part of their finery. They take the greatest care in the decorations of their persons; bracelets, girdles, necklaces, nothing is forgotten, when they mean to appear full dressed, which they think can add to their embellishment. They likewise make a kind of netting to cover their legs with, in the form of buskins; but those, who cannot arrive at the height of magnificence here described, content themselves with decorating their legs only with the same kind of rushes their mats are made of, or with small thongs cut from the hide of an ox and rounded with a mallet.

This custom has given rise to those accounts which are to be met with in a number of travels, (mostly copied one from another,) where these people are said to wrap the intestines of beasts they kill, round their legs and arms; and that they devour their ornaments when they begin to putrify; it is a gross error, which ought to be forgotten with the books which have produced it.

Originally the bandages of leather, or rushes, with which the Hottentots used to envelope their legs, were considered as a necessary preservative against the thorns and briars: they served likewise to secure them from the bite of serpents, with which these parts of Africa abound; but luxury has subverted these inventions which necessity suggested, and the women have supplied the place of those skins and rushes, which were of real utility, with netting and beads, which they now consider merely as an ornament.

I have added a plate of a female Hottentot in all her habiliments, and I can assure my readers it is by no means exaggerated.

The two colours in greatest estimation among them are red and black. The first is an ochre, which is found in a number of places in this country, and is prepared for their use by being ground up with a quantity



*The Hottentot Woman
in full dress.*

Published as the Act directs. Sept. 20. 1794.



tity of grease. The black colour is nothing more than soot or charcoal, and is prepared in the same manner. Some women, it is true, content themselves with painting their cheeks only, but the generality divide their faces into several distinct compartments, and this article of embellishment they are a considerable time in completing. These favourite colours of the Hottentots are always perfumed with the powder of bucku, which does not strike the smell of an European with any agreeable sensation; but perhaps our essences, odours, and perfumes, would be equally insupportable to a Hottentot. At least the bucku has one advantage over our pastes, washes, and rouge; it is not pernicious to the skin; and never reduces those who use it to consumptions. The Hottentot, who knows nothing of musk, ambergrease, or benjamin, is likewise unacquainted with megrims, spasms, and vapours. The men never paint their faces like the women, but they frequently make use of a mixture of the two colours to daub their upper lips; by which disposition of it they have the satisfaction of enjoying the smell incessantly. The young ladies sometimes suffer their lovers to apply this delicate mixture under their noses; this is considered as a favour, and gives the lass so decorated an air of smartness which renders her extremely interesting in the eyes of a young Hottentot.

Among the Hottentots there is a particular kind of people that may be styled the *composite*, who have principally sprung up in the present age, and have not yet, I believe, been mentioned by any traveller. This new generation will one day over-balance the old, and the epocha of its power will no doubt introduce extraordinary changes in the Dutch colony at the Cape of Good Hope, and perhaps effect its ruin.

The multiplication of these individuals, which may be extremely rapid, might reasonably alarm the Dutch politics; but they seem to be in a lethargy in this respect, and to take very little care of the consequences
which

which may probably arise from want of exertion. I mean to speak of the natural children which have sprung from an intercourse of the whites with the female Hottentots, or between these same women and the negroes. They are commonly known at the Cape under the appellation of *Bastard Whites*, though this denomination is rather more applicable to the former sort; for the latter are not so numerous, the Hottentot women not being willing to form connections with the negroes, because, as they say, they suffer themselves to be sold like brutes: while on the contrary, they look on themselves as honoured by an intercourse with the Europeans, and love to have the title of their mistresses. The race produced by these last-mentioned unions, gains ground and multiplies considerably. They are free like the Hottentots, and held in greater esteem by them, notwithstanding the disdain with which they are treated at the Cape, where they do not even give themselves the trouble to baptize them. Their character approaches nearer the European than the Hottentot; they have more courage and energy than the latter, and are not so averse to labour; but on the other hand, they are more passionate, enterprising, and mischievous; and it is not uncommon to see them assassinate the masters to whom they have sold their services: in this respect they are even worse than the negroes, and are usually the fabricators of those villainies that are every day committed in one or other of the plantations.

The Hottentot is of a more peaceable disposition; too phlegmatic to plan any atrocious enterprise, he has not even the resolution to assist in their accomplishment, and the worst treatment would not be able to provoke him to any great degree of exertion; in one word, the colonist who has only Hottentots in his service may sleep in peace, certain that they will rather warn him of danger than attempt any thing to his disadvantage.

The bastard-white is well made, robust, his skin is of a cleaner olive than the Hottentot, or rather the colour of dried lemon-peel; his hair is black, but longer, and less woolly; the children of these women by a white, as may be supposed, are still fairer; but, when by these gradations the skin and hair cannot be distinguished from those of a European, the prominence of the cheeks will continue remarkable; it is an indelible character by which they may be known even after the fourth generation.

The race produced by the Hottentot women and negroes is far superior to the others; they are even taller and better formed; their colour bears a just proportion between the black of the father and the olive of the mother, and is more agreeable to the eye than either.

They are, indeed, very different from the bastard-white, both in their physical and moral qualities; they are in general request for labour; but what renders them still more estimable, is, that to great activity without turbulence, they join the merit of a fidelity which may be depended on. Unhappily this kind is scarce, owing to the disdain with which the Hottentots look on the negroes. It would long since have been of public utility, and a particular advantage to the colonists, had administration encouraged the propagation of this sort of people; the expence would not have been burthensome, and in the end would have been returned an hundred-fold. We are not now in that age sacred to ignorance, when every black was accounted a cannibal; the Spaniards themselves have given up the opinion that prevailed in the time of their barbarous Peruvian incursions, when it was thought impossible that a soul of any value should exist but in a white body. Travellers, or rather the establishment of a sound and rational philosophy, have taught us that a rough outside might cover a precious diamond.

Among the various nations that inhabit the western coast of Africa, some are distinguished from others by their social qualities and laudable inclinations, besides possessing a greater degree of aptitude and energy; these should be encouraged to settle in the colonies, where they should have entire liberty; the colonists, to the utmost of their power, should endeavour to promote a union between them and the female Hottentots; when once these women beheld them free, they would no longer despise them, and by this means a generation might be produced, who, adding the pacific dispositions of their mothers to the good qualities of the best Guinea blacks, would render useless, nay, inconvenient, the unnatural bonds of slavery in all this part of Africa.

But these easy and natural means, which formerly would have required no difficulty in the execution, will probably be never attempted; perhaps it is now too late. On the other hand, if the project is yet practicable, it must be brought about by the Dutch East-India Company, whose endeavours, on this occasion, might overcome many obstacles. With the most scrupulous exactitude in its engagements, it unites a generosity, which, for the sake of their honour and prosperity, all other commercial associations should take pattern by; which, if properly represented to this respectable body, would, doubtless, cause them to take the necessary measures to execute a plan that would render their names immortal. But it is to be lamented, that a radical vice in the disposition of the colonists opposes its accomplishment, and it would be requisite in the first place to remove those ridiculous and anti-patriotic prejudices, which pervade the whole body of them.

They suffer, because it appears difficult to stop the progress of the evil, that the colonists, so vain of their colour, but, who, in general, have no mental qualifications to distinguish them from the slaves;---they suffer,





J. Dale del.

J. Chapman sculp.

The Bastard White.

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suffer, I say, that these uninformed country people, proud of a mediocrity of fortune, which they have not acquired by superior abilities, should look on and treat with disdain, men, who by their services, either as soldiers or sailors, have merited well of the company, and obtained permission to settle at the Cape; to such a height are their ideas of superiority carried, that the most inconsiderable among them would think himself degraded by giving his daughter to one of these brave soldiers or expert seamen; and a girl, educated in these principles, would rather live in a state of celibacy than become the wife of one of these defenders of her country. This class of people, therefore, rejected by the whites, are in a manner constrained to form connections with the female Hottentots; and this is the reason of that amazing increase of the bastard-whites, which bid fair to overflow the colonies; the turbulent and enterprising blood of the Europeans circulates in their veins, and there is a continual danger of troubles being fomented and projects formed, which the colonists (who are too much dispersed about the country to unite suddenly in one body) would neither have time nor power to prevent.

It is now computed that the number of bastard-whites in the colonies bears about the same proportion, with respect to the Hottentots, as one to five; the epocha of this mixture, to fix it at its most early period, cannot be prior to the establishment of the Dutch at the Cape, that is to say, one hundred and thirty years: it may further be presumed, that if intercourses with the Hottentots, who were then in their savage state, soon took place, they were neither so easily effected or so general as of late years: again, it is certain that the population of the colonies did not amount as now to twenty-four thousand whites.

These observations may give some idea of the progressive increase of both sorts; the limits of the colonists are every day extending, consequently the num-

ber of Hottentots in their jurisdiction is continually augmented; at the same time, deviating more and more from their original character, they bastardize, and are confounded by a mixture with the whites and negroes; the degeneration is rapid, and their natural good qualities will soon be corrupted.

The cold and phlegmatic constitution of the Hottentot men forbids any rapid increase in their posterity; but this same cause has a quite contrary effect with the other sex, and the women, who would have only three or four children by a Hottentot, will have three times that number by a negro, and still more with a white.

If the bastard-white is naturally of a bad disposition; if he is vindictive, enterprising, and perfidious; is it because he is the offspring of a white by a female Hottentot, and that children partake more of the disposition of the father than of the mother? This presumption, humiliating as it may appear to us, cannot be controverted; for, when it happens (which is very rare) that a white woman has children by a Hottentot, the mild and peaceable disposition of the father is always predominant in them.

Next to the Hottentots, is the land of Caffraria, the natives of which seem to form the shade between the blacks of Senegal and the tawny colour of the Hottentots. To judge of the Caffres by those I have seen, they are taller than the Hottentots, though they greatly resemble them, but are more robust, and possess a greater degree of pride and courage; the features of the Caffres are likewise more agreeable, none of their faces contracting towards the bottom, nor do the cheek-bones of these people project in the uncouth manner of the Hottentots; neither have they large flat faces and thick lips, like their neighbours, the negroes of Mosambique, but a well-formed contour, an agreeable nose, with eyes sparkling and expressive; so that, setting aside our prejudice with re-
spect.

spect to colour, there are many women among them who might be thought handsome by the side of an European. They do not disfigure themselves by daubing their eye-brows like the Hottentots, but are very much tatooed, particularly about the face.

The hair of the Caffres (which is strong and curling) is never greased, but they anoint the rest of their bodies with a view of making themselves active and strong.

The men are more particular in decorations than the women, being very fond of beads and brass rings; they are seldom seen without bracelets on their legs and arms, made of the tusks of an elephant, which they saw to a convenient thickness, and then polish and round them. As these rings cannot be opened, it is necessary to make them big enough to pass the hand through, so that they fall or rise according to the motion of the arm. Sometimes they place small rings on the arms of their children, whose growth soon fills up the vacant space and fixes the ornament, a circumstance which is particularly pleasing to them. They likewise make necklaces of the bones of animals, which they polish and whiten in the most perfect manner: some content themselves with the leg-bone of a sheep hanging on the breast, which is thought as pleasing a decoration as a patch on the face of a pretty woman.

In the warm season the Caffres only wear their ornaments; when the weather is cold, they make use of kroses made of the skin of calves or oxen, which reach to the feet. One particularity which deserves attention, and does not exist elsewhere, is, that the Caffre women care little for ornaments; indeed, they are well made and pretty, when compared to other savages; perhaps too, they have sense enough to know that decorations are more fit to mask imperfection than to add to beauty: be that as it may, these women never use the uncouth profusion of Hottentot coquetry,

coquetry, not even wearing copper bracelets. Their aprons, like those of the Hottentots, are bordered with several rows of beads, which is the only vanity they exhibit. I have annexed a plate of a Caffre woman suckling her child.

The skin that the female Hottentot ties about the loins, the Caffre woman wears as high as her shoulders, tying it over the bosom, which it covers. They have, like the men, a kros or cloak of calf or ox skin; but it is only in the cold or rainy season that either sex wear it. These skins are as soft and pliant as the finest stuffs. Let the weather or season prove ever so bad, neither men nor women ever cover their heads; sometimes, indeed, the head of the better sort of Caffres are adorned with a feather, stuck in the hair.

The Caffres are governed by a chief, or king, whose power is very limited, receiving no tax, having no troops at his command, but being the father of a free people; neither attended nor feared, but respected and beloved, and frequently poorer than many of his subjects; being permitted to take as many wives as he pleases (who think it an honour to belong to him), it is necessary that he should have a larger portion of land to cultivate, and a greater number of cattle to tend and feed; these being his only resources for the maintenance of his numerous family, he is frequently in danger of being ruined. His cabin is neither higher nor better decorated than the rest; his whole family and seraglio live round him, composing a group of a dozen or fifteen huts; the adjoining land is generally of his own cultivation. It is a custom among them for each to gather his own grain, which is the favourite nourishment of the Caffres, and which they grind or rather crush between two stones; for which reason, the families living separately, each surrounded by its own plantation of corn, occasions a small hoord to occupy a large portion of ground, a circumstance never seen among the Hottentots. The distance of the different
hoords



J. Dale delin.

J. Chapman sculpt.

The Caffre Woman.

Published as the Act directs Aug: 24. 1794.



hoords makeſ it neceſſary that they ſhould each have a chief, who is appointed by the king; when there is any thing to communicate intereſting to the nation, he ſends for and gives them orders, or rather information, which the chiefs bear to their ſeveral hoords.

The Hottentot is too timorous and ill-armed to face danger boldly; he therefore chiefly depends on his cunning; and, charged with the office of a ſpy, reconnoitres the poſts of the enemy, endeavouring particularly to diſcover where his effects are concealed; the piercing eye of the Caffre frequently diſcovers theſe manœuvres; he darts on his prey with the rapidity of lightning, and ſacrifices him in an inſtant.

The principal weapon of the Caffre is the lance, or aſſagay, which ſhews his diſpoſition to be at once intrepid and noble; deſpiſing, as below his courage, the envenomed dart, ſo much in uſe among his neighbours; ſeeking his enemy face to face, and never throwing his lance but openly. The Hottentot, on the contrary, hid in the nook of a rock, or concealed by a thicket, diſpatches an unſeen death, without expoſing himſelf to the hazard of a return; thus one is a perfidious tyger who ruſhes by ſtealth upon his prey, while the other, like a generous lion, gives warning, attacks openly, and either conquers or falls. The idea of inequality of weapons is not capable of ſubduing his courage, which bears him above ſuch conſiderations. In war he carries a ſhield, of about three feet in height, made of the thickeſt part of the hide of a buffalo; this defends him from the arrow or aſſagay, but it is not proof againſt a muſquet-ball.

As a proof of the dexterity with which the aſſagay is thrown by the Caffres, M. Vaillant relates the following circumſtance: "Having heard of the redoubtable weapons uſed by the Caffres, I wiſhed to be myſelf a witneſs of what could be effected with them, by a youth of about eighteen; who, with a good grace, prepared himſelf for the trial. I ſeparated a ſheep
from

from the flock, and bade him try his skill on that. He took five assagays in his left hand, and one in his right; on a signal given, my man let go the sheep, which ran to rejoin the flock; he brandished his weapon, and running four or five steps, threw it with amazing force; the shaft whistled through the air--- the head was presently buried in the side of the animal, who fell and died on the spot. I could not conceal my pleasure and surprise; so much skill, united with strength and grace, enchanted me. Self-love is an universal passion, though modified according to the taste and manners of different climes and people: in Europe, it sparkles in the eyes of a handsome woman, and renders her disdainful; it is the soul of genius, the stimulator to every surprising effort of art; it exults in the pomp of luxury; it hides itself under filth and tatters. In Africa, the savage has not the art to disguise his sentiments; the testimonies of admiration this young Caffre had drawn from me gave an additional animation to his countenance: proud of his triumph, he scarcely appeared to touch the earth; he placed himself by my side with a look of exultation, and seemed to say, *Where is the difference?* I have given an exact sketch of this young Caffre in the annexed plate.

The Caffre also manages with great skill a club, of about two feet and a half long, made of a solid piece of wood three or four inches thick in the largest part, and gradually diminishing towards one of the ends. When in a close engagement, they strike with this weapon, or frequently throw it to the distance of fifteen or twenty paces, in which case it seldom fails of the intended effect.

The dead are seldom buried, but carried away from the kraal by their family, and deposited in a deep trench common to the whole hoord on such occasions, where the wild beasts repair at leisure, which preserves



J. Thie delin.

J. Chapman sculp.

The Caffre Man.

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serves the air from those noxious vapours which otherwise the putrefaction would occasion.

The honours of burial are only due to the king, or chief of a hoord; they cover these bodies with piles of stones formed like a dome, which may account for that range of small hills which were formerly to be seen in the environs of Bruyntjes-Hoogte, the ancient dominion of the Caffres."

Still passing along the African coast, beyond the Cape of Good Hope, we meet with the territory of Natal, the inhabitants of which differ greatly from the Hottentots. They are better made, and naturally blacker; their visage is oval, their nose well proportioned, and their teeth are white; their aspect is agreeable, and their hair is naturally crisped. But, like the Hottentots, they have some taste for grease; for they wear bonnets made of the tallow of oxen. These bonnets are from eight to ten inches high, and they spend a good deal of time in preparing them: for this purpose, the tallow must be well refined; they apply but little of it at a time, and mingle it so completely with their hair, that it never falls off. M. Kolbe alledges, that their noses are flat from their birth, and that they use no arts to flatten them; that they do not stammer, or strike the palate with their tongue, like the Hottentots; that they build houses, cultivate the ground, and sow a species of maize or Turkish corn, of which they make ale, a drink unknown to the Hottentots.

Beyond the territory of Natal, we meet with those of Sofala and Monomotapa. According to Pigafetta, the people of Sofala are black, but taller and thicker than the other Caffres. This author places the Amazons in the neighbourhood of the kingdom of Sofala. These female warriors are said to have killed all their male children; and they cut off the right breasts of their females, to make them more fit for the combat.

The Amazons are particularly mentioned by Herodotus. That historian informs us, that the Grecians fought a battle with the Amazons on the river Thermodoon, and defeated them. After their victory, they carried off all the Amazons they could take alive in three ships. But, whilst they were out at sea, these Amazons conspired against the men, and killed them all. Having, however, no knowledge of navigation, nor any skill in the use of the rudder, sails, or oars, they were driven by wind and tide till they arrived at the precipices of the lake Mæotis, in the territories of the Scythians. Here the Amazons went ashore, and, marching into the country, seized and mounted the first horses they met with, and began to plunder the inhabitants. The Scythians at first conceived them to be men; but after they had had skirmishes with them, and taken some prisoners, they discovered them to be women. They were then unwilling to carry on hostilities against them; and by degrees a number of the young Scythians formed connections with them, and were desirous that these gentle dames should live with them as wives, and be incorporated with the rest of the Scythians. The Amazons agreed to continue their connection with their Scythian husbands, but refused to associate with the rest of the inhabitants of the country, and especially with the women of it. They afterwards prevailed upon their husbands to retire to Sarmatia, where they settled. "Hence," says Herodotus, "the wives of the Sarmatians still continue their ancient way of living. They hunt on horseback in the company of their husbands, and sometimes alone. They march with their armies, and wear the same dress with the men. The Sarmatians use the Scythian language, but corrupted from the beginning, because the Amazons never learned to speak correctly. Their marriages are attended with this circumstance: no virgin is permitted to marry till she has killed an enemy in the field; so
that

that some always grow old before they can qualify themselves as the law requires."

Diodorus Siculus says, "There was formerly a nation who dwelt near the river Thermodoon, which was subjected to the government of women, and in which the women, like men, managed all the military affairs. Among these female warriors, was one, who excelled the rest in strength and valour. She assembled together an army of women, whom she trained up in military discipline, and subdued some of the neighbouring nations. Afterwards, having by her valour increased her fame, she led her army against the rest; and, being successful, she was so puffed up, that she styled herself the daughter of Mars, and ordered the men to spin wool, and do the work of the women within doors. She also made laws, by which the women were enjoined to go to the wars, and the men to be kept at home in a servile state, and employed in the meanest offices. They also debilitated the arms and thighs of those male children who were born to them, that they might thereby be rendered unfit for war. They feared the right breasts of their girls, that they might be no hindrance to them in fighting: from whence they derived the name of Amazons. Their queen, having become extremely eminent for skill and knowledge in military affairs, at length built a large city at the mouth of the river Thermodoon, and adorned with a magnificent palace. In her enterprises she exactly adhered to military discipline and good order; and she added to her empire all the adjoining nations, even to the river Tanais. Having performed these exploits, she at last ended her days like a hero, falling in a battle, in which she had fought courageously. She was succeeded in the kingdom by her daughter, who imitated the valour of her mother, and in some exploits excelled her. She caused the girls from their infancy to be exercised in hunting, and to be daily trained up in military exercises. She instituted solemn festivals

and sacrifices to Mars and Diana, which were named Tauropoli. She afterwards carried her arms beyond the river Tanais, and subdued all the people of those regions, even unto Thrace. Returning then with a great quantity of spoils into her own kingdom, she caused magnificent temples to be erected to the deities before mentioned; and she gained the love of her subjects by her mild and gentle government. She afterwards undertook an expedition against those who were on the other side of the river, and subjected to her dominion a great part of Asia, extending her arms as far as Syria."

Diodorus also mentions another race of Amazons who dwelt in Africa; and whom he speaks of as being of greater antiquity than those who lived near the river Thermodoon, and is unquestionably the race of people spoken of by Pigafetta, as bordering on Sofala and Monomotapa. "In the western parts of Libya," says he, "upon the borders of those tracts that are habitable, there was anciently a nation under the government of women, and whose manners and mode of living were altogether different from ours. It was the custom of these women to manage all military affairs; and for a certain time, during which they preserved their virginity, they went out as soldiers into the field. After some years employed in this manner, when the time appointed for this purpose was expired, they associated themselves with men, in order to obtain children. But the magistracy, and all public offices, they kept entirely in their own hands. The men, as the women are with us, were employed in household affairs, submitting themselves wholly to the authority of their wives. They were not permitted to take any part in military affairs, or to have any command, or any public authority, which might have any tendency to encourage them to throw off the yoke of their wives. As soon as any child was born, it was delivered to the father, to be fed with milk, or such other food as was suitable

suitable to its age. If females were born, they feared their right breast, that they might not be burthenfome to them when they grew up; for they considered them as great hindrances in fighting."

The common opinion is, that they burnt that breast, by applying to it, at eight years of age, a hot brazen instrument, which insensibly dried up the fibres and glands; some think that they did not make use of so much ceremony, but that when the part was formed they got rid of it by amputation: some again, with much greater probability, assert, that they employed no violent measures; but, by a continual compression of that part from infancy, prevented its growth, at least so far as to hinder its ever being incommodious in war.

The Amazons are represented as being armed with bows and arrows, with javelins, and also with an axe of a particular construction, which was denominated the Axe of the Amazons. According to the elder Pliny, this axe was invented by Penthesilea, one of their queens. On many ancient medals are representations of the Amazons, armed with these axes. They are also said to have bucklers in the shape of a half-moon.

Yet that there should have been women, who, without the assistance of men, built cities and governed them, raised armies and commanded them, administered public affairs, and extended their dominions by arms, is undoubtedly so contrary to all that we have seen and known of human affairs, as to appear in a very great degree incredible, and is therefore considered by many as fabulous; but that women may have existed sufficiently robust, and sufficiently courageous, to have engaged in warlike enterprises, and even to have been successful in them, is certainly not impossible, however contrary to the usual course of things. In support of this side of the question, it may be urged, that women who have been early trained to warlike exercises, to hunting, and to an hard and laborious mode of living, may

may be rendered more strong, and capable of more vigorous exertions, than men who have led indolent, delicate, and luxurious, lives, and who have seldom been exposed even to the inclemencies of the weather. The limbs of women, as well as of men, are strengthened and rendered more robust by frequent and laborious exercise. A nation of women, therefore, brought up and disciplined as the ancient Amazons are represented to have been, would be superior to an equal number of effeminate men; though they might be much inferior to an equal number of hardy men, trained up and disciplined in the same manner.

With regard to the natives of Monomotapa, say the Dutch travellers they are tall, handsome, black, and have fine complexions. The young girls go naked, wearing only a thin piece of cotton stuff upon their middle; but put on garments as soon as they get husbands. These people, though very black, are different from the negroes. Their features are neither so coarse nor so ugly; their bodies have no bad smell; and they can neither support servitude nor hard labour. Father Charlevoix tells us, that he has seen blacks of Monomotapa and Madagascar in America; but that they could never be trained to labour, and soon perished.

The natives of Madagascar and Mosambique are more or less black. The inhabitants of Madagascar have the hair on the crown of their heads not so much crisped as those of Mosambique. Neither of them are true negroes; and, though those on the coast are very submissive to the Portuguese, the people in the interior parts of the continent are extremely savage, and jealous of their liberty. Both men and women go perfectly naked; they eat the flesh of elephants, and sell the ivory to strangers. Madagascar is chiefly inhabited by blacks, and whites, who, though very tawny, seem to be a very different race of men. The hair of the former is black, and crisped; that of the latter

latter is fairer, less frizzled, and longer. It is a common opinion, that these whites derive their origin from the Chinese. But Francis Cauche properly remarks, that they seem to be of European extraction; for he assures us, that all of them he saw had neither flat faces nor noses, like the Chinese. He likewise says, that these whites are fairer than the Castilians; that their hair is long; that the blacks are not flat-nosed like those on the continent; that their lips are thin. In this island there are also many persons of an olive or tawny colour, who probably proceed from a mixture of the blacks and whites. The same traveller informs us, that the inhabitants round the bay of St. Augustine are tawny; that they have no beard; that their hair is long and smooth; that they are tall and handsome; and, lastly, that they are all circumcised, though they probably never heard of the law of Mahomet, for they have neither temples, mosques, nor religion. The French first landed and established a settlement on this island; but the settlement was not supported. When they arrived, they found the white men above described; and they remarked, that the blacks had a great respect for these whites. The island of Madagascar is extremely populous, and abounds in cattle and pasturage. Both men and women are exceedingly debauched; and public prostitution is not followed with dishonour. They love dancing, singing, and similar amusements. Though indolent, they have some knowledge of the mechanic arts; and, though they have no moveables in their houses, but lie upon mats, they have husbandmen, smiths, carpenters, potters, and even goldsmiths. They eat their meat almost raw, and devour the skins of their oxen, after singeing the hair; they likewise eat the wax with the honey. The common people go almost naked; but the more opulent wear drawers or petticoats of cotton and silk.

M. Rochon

M. Rochon informs us, that the inhabitants of Madagascar are in person above the middle size of Europeans. The colour of the skin is different in different tribes : among some it is of a deep black, among others tawny; some of the natives are of a copper colour, but the complexion of by far the greatest number is olive. All those who are black have woolly hair like the negroes on the coast of Africa : those, on the other hand, who resemble Indians and mulattoes, have hair equally straight with that of the Europeans ; the nose is not broad and flat ; the forehead is large and open ; in short, all their features are regular and agreeable. Their physiognomy displays the appearance of frankness and of satisfaction : they are desirous only of learning such things as may administer to their necessities ; that species of knowledge which demands reflection is indifferent to them ; sober, agile, active, they spend the greatest part of their time either in sleep or in amusement. In fine, according to the Abbé, the natives of Madagascar, like savages in general, possess a character equally devoid of vice and of virtue ; the gratifications of the present moment solely occupy his reflections ; he possesses no kind of foresight whatever ; and he cannot conceive the idea that there are men in the world who trouble themselves about the evils of futurity.

Mr. Ives, who visited Madagascar in Admiral Watson's Squadron, in 1754, says, the men always carry in their hands a wooden lance headed with iron, which is commonly made very neat ; and that they are such excellent marksmen, that they will strike with it a very small object at thirty or forty yards distance. They have also commonly a musquet, which they get from Europeans in exchange for cattle, and are always sure to keep it in excellent order. I am sorry to say, (continues Mr. Ives,) that the English are frequently guilty of great impositions in this kind of traffic, by disposing of cheap and ill-tempered barrels among the poor inhabitants,

inhabitants, who sometimes lose their lives by the bursting of these pieces. Such iniquitous practices as these must in the end prove injurious to the nation; and have indeed already made the name of more than one half of these traders truly infamous among the deluded but hitherto friendly Madagascarians."

The natives of the interior parts of Africa are too little known to admit of much description. Those called *Zingues* are black, and almost perfectly savage. Marmol tells us, that they multiply prodigiously, and would over-run the adjacent country, if numbers of them were not swept off, from time to time, by a great mortality occasioned by the hot winds.

Upon the whole, it appears, that the negroes are a different species of blacks from the Caffres. But, from the descriptions we have given, it is still more apparent, that the differences of colour are produced by the climate; and that the peculiarities in features depend much upon the customs which take place among different nations; such as flattening the nose, pulling the hair off the eye-brows, lengthening the ears, thickening the lips, making the face broad, &c. Nothing can be a stronger proof of the influence of climate upon colour, than to find, under the same latitude, and distant from each other more than a thousand leagues, people so similar as the Nubians and natives of Senegal; and to find, that the Hottentots who must have originated from a black race, are the whitest people in Africa, for no other reason but because their country is the coldest. If the tawny nation on the one side of the river Senegal, and the perfect blacks on the other, occur as an objection, we must refer to what was before remarked concerning the effects of food, which has a great influence in colour, as well as many other customs and modes of living: and if an example be demanded, I shall produce one from the brute creation, which every man is in a condition to verify. The flesh of the hares that live in the plains and moist

grounds is whiter than that of those which inhabit mountainous or dry regions; and, even in the same part of the country, those which feed in the meadows are perfectly different from those that dwell on the hills. The colour of the flesh proceeds from that of the blood and other humours of the body, the qualities of which necessarily depend on the nature of the food.

The origin of black men has, at all times, been an object of enquiry. The ancients, who knew only those of Nubia, regarded them as the last or terminating shade of the tawny colour, and confounded them with the Ethiopians, and other African nations, who, though extremely brown, belong more to the white than to the black race. They thought that the differences of colour among the human species proceeded solely from the varieties of climate, and that blackness was occasioned by a perpetual exposure to the hot rays of the sun. This opinion, though very probable, was much weakened after it was discovered that the inhabitants of more southern climates, and even under the equator itself, as those of Melinda and Mosambique, were not black, but very tawny; and when it was farther discovered, that blacks transported into more temperate climates lost nothing of their original hue, but communicated it to their descendants. If we attend, however, to the migrations of different people, and to the time necessary to produce a change in their colour, we shall, perhaps, find the opinion of the ancients to have been well founded; for the natives of this part of Africa are Nubians, and will preserve their original blackness as long as they continue to live under the same climate, and do not mix with the whites. But the Ethiopians, the Abyssinians, and even the natives of Melinda, though they derive their origin from the whites, their religion and customs being the same with those of the Arabians, are, however, more tawny than the inhabitants of the southern parts

parts of Arabia. This circumstance alone evinces, that, even among the same race of men, the different degrees of blackness depend, more or less, upon the heat of the climate. Many ages are, perhaps, necessary to change the white colour into perfect blackness; but it is probable, that, in a succession of generations, a white people, transported from the north to the equator, would undergo this change, especially if they adopted the manners, and used the food, of the new country. The objection drawn from the difference of features is not insurmountable; for the features of a negro, who has not been purposely deformed in his infancy, differ not more from those of an European than a Tartar differs from a Chinese, or a Circassian from a Greek: and, with regard to the hair, the nature of it depends so much on the quality of the skin, that any differences which take place in it ought to be considered as merely accidental; for in the same country, and even in the same village, we find every possible variety of hair. In France, for example, there are some men whose hair is as short and as crisped as that of a negro: besides, heat and cold have great influence upon the colour of the hair both of men and other animals. In the northern regions, black hair is seldom or never seen: and squirrels, hares, weasels, and several other animals, are white in the north, but brown or grey in more southern latitudes. The effects produced by cold and heat are even so remarkable, that, in Sweden, certain animals, as the hares, are grey during the summer, and perfectly white in winter.

But the New World affording no examples of true blacks, is the strongest argument against this hypothesis; and it appears, at first sight, to be almost insuperable. If blackness were the effect of heat alone, why do we not find negroes or black men in the Antilles, in Mexico, in Santa-fé, in Guiana, in the country of the Amazons, or in Peru; since these countries of America are situated under the same latitude with Senegal,

Guinea, and Angola, in Africa? If the different colours of the human species were occasioned by the climate, or the distance from the pole, we should have found, in the Brasils, in Paraguay, or in Chili, men similar to the Caffres and Hottentots. But, before attempting to remove this objection, it is necessary to give a short description of the various inhabitants of the New World, or nations of America; after which we shall be the better qualified to make just comparisons, and to draw general conclusions.

The continent of America extends from Cape Horn, the southern extremity of the continent, in latitude fifty-six degrees south, to the north pole; and spreads between the fortieth degree east and the hundredth degree west longitude from Philadelphia. It is nearly ten thousand miles in length from north to south. Its average breadth may be about fourteen or fifteen hundred miles. This extensive continent lies between the Pacific Ocean on the west, and the Atlantic on the east. It is said to contain upwards of fourteen million square miles.

In regard to the climate, soil, and productions, America has all the varieties which the earth affords. It stretches almost through the whole width of the five zones, and feels the heat and cold of two summers and two winters in every year. Most of the animal and vegetable productions which the eastern continent affords, are found here; and many that are peculiar to America alone.

There are no *data*, says Mr. Morse, in his late improved edition of American Geography, from which we may estimate the number of inhabitants in America with any degree of accuracy. I suppose the continent of America to contain fourteen millions of square miles; including the islands, fifteen millions. The United States contain one million square miles, or one fifteenth part of the American continent and islands. I suppose (merely for the purpose of calculation) that every
other

other part of America is as populous as the United States. Probably there may be some parts, particularly the West-India islands, and some provinces in Spanish America, which are more populous; but there are many other parts which are by no means so populous. The probability in my opinion, is, that the other parts of America, collectively considered, are not nearly so thickly inhabited as the territory of the United States. There is certainly no reason to believe that they are more populous. American population is thin: and vast tracts of deserts, marshes, and mountains, are uninhabited. In the United States we reckon four millions of inhabitants, Anglo-Americans, negroes, mulattoes, and Indians, within the jurisdiction of the general government. Besides these, there may be about fifty thousand Indians, independent of the United States, and subject to their own princes. The whole population of the United States then we reckon at four millions and fifty thousand. If then we suppose America to contain fifteen millions of square miles; and that in every part it is equally as populous as the United States, that is, that there are in every million of square miles four millions and fifty thousand inhabitants; the whole number will be sixty millions seven hundred and fifty thousand.

That America was peopled very anciently and soon after the flood is very probable: 1. Because the aboriginal Americans, till they became acquainted with Europeans, were ignorant of those arts and inventions, such, among others, as those of oil and wax for light, which being very ancient in Europe and Asia, on the one hand, are, on the other, most useful, not to say necessary, and, when once discovered, are never forgotten. 2. Because the polished nations of the New World, and particularly those of Mexico, preserve, in their traditions and paintings, the memory of the Creation of the World, the building of the Tower of Babel,
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the confusion of languages, and the dispersion of the people, though blended with some fables, and had no knowledge of the events which happened afterwards in Asia, Africa, or in Europe, many of which were too remarkable to escape the memory. 3. Because neither was there among the Americans any knowledge of the people of the old continent, nor among the latter any account of the passage of the former to the New World. These reasons render it at least probable that America was peopled early after the flood.

On the two questions how and from whence America was first peopled, much has been said. Those who call in question the authority of the sacred writings say, the Americans are not descended from Adam, that he was the father of the Asiatics only, and that God created other men to be the patriarchs of the Europeans, Africans, and Americans. But this is one among the many weak hypotheses of unbelievers, and is wholly unsupported by history. It is contrary to the tradition of the Americans, who in their paintings, and in their hymns, called themselves the descendants of those who escaped the general deluge. The Mexicans, Toltecas, and several other nations, were agreed in this point. They all said their ancestors came from other parts into those countries; they pointed out the road they came, and even preserved the names, true or false, of their first progenitors, who, after the confusion of languages, separated from the rest of mankind. These traditions, with others, considered in connection with the sacred writings, must convince us that we ought to seek among the descendants of Noah for the first peoplers of America.

But who were they? To recite all the opinions given in answer to this question, would lead us beyond the limits of this work. Dr. Robertson and the Abbé Clavigero have extensively and learnedly investigated the subject; and I cannot expect to afford the reader more satisfaction than to give him the result of their

their enquiries. Dr. Robertson, having recapitulated and canvassed the most plausible opinions on the subject, comes to the following conclusions, viz.

America was not peopled by any nation from the ancient continent, which had made any considerable progress in civilization; because, when America was first discovered, its inhabitants were unacquainted with the necessary arts of life, which are the first essays of the human mind toward improvement; and if they had ever been acquainted with them, for instance, with the plow, the loom, and the forge, their utility would have been so great and obvious, that it is impossible they should have been lost. Therefore the ancestors of the first settlers in America were uncivilized and unacquainted with the necessary arts of life.

America could not have been peopled by any colony from the more southern nations of the ancient continent; because none of the rude tribes of these parts possessed enterprise, ingenuity, or power, sufficient to undertake such a distant voyage: but more especially, because that in all America there is not an animal, tame or wild, which properly belongs to the warm or temperate countries of the eastern continent. The first care of the Spaniards, when they settled in America, was to stock it with all the domestic animals of Europe. The first settlers of Virginia and New England brought over with them, horses, cattle, sheep, &c. Hence it is obvious that the people who first settled in America did not originate from these countries where these animals abound; otherwise, having been accustomed to their aid, they would have supposed them necessary to the improvement, and even support, of civil society.

Since the animals in the northern regions of America correspond with those found in Europe in the same latitudes, while those in the tropical regions are indigenous, and widely different from those which inhabit the corresponding regions on the eastern continent, it is more than probable that all the original American
animals

animals were of those kinds which inhabit northern regions only, and that the two continents, towards the northern extremity, are so nearly united as that these animals might pass from the one to the other.

It having been established beyond a doubt, by the discoveries of Captain Cook in his last voyage, that at Kamtskatka, in about latitude sixty-six degrees north, the continents of Asia and America are separated by a strait only eighteen miles wide, and that the inhabitants on each continent are similar, and frequently pass and repass in canoes from one continent to the other; from these and other circumstances it is rendered highly probable, that America was first peopled from the north-east parts of Asia. But since the Esquimaux Indians are manifestly a separate species of men, distinct from all the nations of the American continent, in language, in disposition, and in habits of life; and in all these respects bear a near resemblance to the northern Europeans, it is believed that the Esquimaux Indians emigrated from the north-west parts of Europe. Several circumstances confirm this belief. As early as the ninth century the Norwegians discovered Greenland, and planted colonies there. The communication with that country, after long interruption, was renewed in the last century. Some Lutheran and Moravian missionaries, prompted by zeal for propagating the Christian faith, have ventured to settle in this frozen region. From them we learn, that the north-west coast of Greenland is separated from America but by a very narrow strait, if separated at all; and that the Esquimaux of America perfectly resemble the Greenlanders in their aspect, dress, mode of living, and probably language. By these decisive facts, not only the consanguinity of the Esquimaux and Greenlanders is established, but the possibility of peopling America from the north-west parts of Europe. On the whole, it appears rational to conclude, that the progenitors of all the American nations, from Cape
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Horn to the southern limits of Labrador, from the similarity of their aspect, colour, &c. migrated from the north-east parts of Asia; and, that the nations that inhabit Labrador, Esquimaux, and the parts adjacent, from their unlikeness to the American nations, and their resemblance to the northern Europeans, came over from the north-west parts of Europe.

Such is the opinion of Dr. Robertson on the question before us; and, for want of information, it is in several respects inaccurate and without foundation. The opinion of the Abbé Clavigero, who was a native of America, and had much better advantages for knowing its history than Dr. Robertson, and who also is a later writer, is in our opinion far less exceptionable, and has much better grounds for its support. He explains his opinions in the following conclusion:---

The Americans are descended from different nations, or from different families dispersed after the confusion of tongues. No person will doubt of the truth of this who hath any knowledge of the multitude and great diversity of the American languages. In Mexico alone thirty-five have already been discovered. In South America still more are known. In the beginning of the last century the Portuguese counted fifty in Maragnon. Between some of these languages there is indeed a great affinity; but others are as different from each other as the English and the Hebrew. It is a truth, that no living or dead languages can differ more than the languages of the Mexicans, Otomies, Tarascas, Mayas, and Miztecas, five languages prevailing in different provinces of Mexico. It would therefore be absurd to say, that languages so different were different dialects of one original. Is it probable, or even possible, that a nation should alter its primitive language to such a degree, or multiply its dialects so variously, as that there should not be, even after many centuries, if not some words common to all, at least

an affinity between them, or some traces left of their origin?

The Americans do not derive their origin from any people now existing as a nation on the eastern continent; at least there is no reason to affirm that they do. This inference is founded on the same argument with the preceding; since, if the Americans are descendants from any of these nations, it would be possible to trace their origin by some marks in their languages, in spite of the antiquity of their separation: but any such traces have not yet been discovered, although most diligent and attentive search has been made, as appears from the work of Dominican Garcia. We have, says Clavigero, leisurely compared the Mexican and other American languages with many others which are now living, and with those which are dead, but have not been able to discover the least affinity between them. This argument is strong with respect to the Americans, as they shew great firmness and constancy in retaining their languages. The Mexicans preserve their language among the Spaniards, and the Otomies retain their difficult dialect among Spaniards and Mexicans, after communication with both for more than two centuries and an half.

If the Americans descended from different families dispersed soon after the confusion of tongues, as we believe, and have since been separated from those others who peopled the countries on the eastern continent, authors will labour in vain to seek, in the language or customs of the Asiatics, for the origin of the people of America.

But the most difficult point in the problem of the population of America remains to be solved, and that is, How did the inhabitants and animals originally pass to America, and from what parts did they come? Among the various opinions of authors upon this point, the following is the Abbé Clavigero's. The men and animals of America passed there from the old

old continent. This is confirmed by the sacred writings. Moses, who declares Noah the common father of all men who survived the deluge, says expressly, that in the general inundation of the earth, all its quadrupeds, birds, and reptiles, perished, except a few of the several species, which were saved alive in the ark, to re-people the earth with their kind. The repeated expressions which the sacred historian uses to signify its universality, do not permit us to doubt, that all quadrupeds, birds, and reptiles, which are in the world, descended from those few individuals which were saved from the general inundation.

The first inhabitants of America might pass there in vessels by sea, or travel by land or by ice. 1. They might either pass there in vessels designedly, if the distance by water were but small, or be carried upon it accidentally by favourable winds. 2. They might pass by land, on the supposition of the union of the continents. 3. They might also make that passage over the ice of some frozen arm of the sea.

The ancestors of the nations who peopled Anahuac (now called New Spain) might pass from the northern countries of Europe into the northern parts of America, or, which is more probable, from the most eastern parts of Asia to the most western parts of America. This conclusion is founded on the constant and general tradition of those nations, which unanimously say, that their ancestors came into Anahuac from the countries of the north and north-west. This tradition is confirmed by the remains of many ancient edifices, built by those people in their migrations. In a journey made by the Spaniards in 1606, from New Mexico unto the river which they call Tizon, 600 miles from that province towards the north-west, they found there some large edifices, and met with some Indians who spoke the Mexican language, and who told them, that a few days journey from that river, towards the north, was the kingdom of Tollan, and many other inhabited

places, whence the Mexicans migrated. In fact, the whole people of Anahuac have usually affirmed, that towards the north were the kingdoms and provinces of Tollan, Aztlan, Copalla, and several others, which have all Mexican names. Boturini says, that in the ancient paintings of the Toltecas was represented the migration of their ancestors through Asia and the northern countries of America, until they established themselves in the country of Tollan; and even endeavours to ascertain, in his General History, the route they pursued in their travels.

With respect to the other nations of America, as there is no tradition among them concerning the way by which their ancestors came to the new world, we can say nothing certain of them. It is possible, that they all passed by the same way in which the ancestors of the Mexicans passed; but it is far more probable that they passed by a very different route. We conjecture, that the ancestors of the nations of South America went there by the way in which the animals proper to hot countries passed; and that the ancestors of those nations inhabiting Esquimaux, Labrador, and the countries adjacent, passed thither from the north-west parts of Europe. The difference of character which is discoverable in the three above-mentioned classes of aboriginal Americans, and the situation of the countries which they occupied, afford ground to suspect that they had different origins, and that their ancestors came there by different routes.

The quadrupeds and reptiles of the new world must have passed there by land. This fact is manifest from the improbability and inconsistency of all other opinions. St. Augustin solves the difficulty of peopling the islands with wild beasts and destructive animals by supposing either, that the angels transported them thither, (a solution, which, though it cuts off every difficulty in the passage of animals to the new world, would not be satisfactory in the present age;)

age;) or, that they might swim to the islands; or, that they might have been carried there by men for the sake of hunting; or, that they might have been formed there by the Creator in the beginning. Others imagined that beasts might pass over some frozen straight or arm of the sea. But, as neither of these opinions can be supported, the probability is, that the quadrupeds, as well as the reptiles, which are found in America, passed thither by land, and of course that the two continents were formerly united. This was the opinion of Acoſta, Grotius, Buffon, and other great men. That this earth has experienced great changes since the deluge will not admit of a doubt. Earthquakes have swallowed up large tracts of land in some places---subterraneous fires have thrown up others---the sea in some places has been forced to retreat many miles from the shore---in others it has made encroachments---and in many instances separated territories which were formerly united. Very considerable tracts of land have been also formed at the mouths of rivers. We have many examples of all these revolutions---Sicily was formerly united to the continent---the straits of Gibraltar, as Diodorus, Strabo, and other ancient authors, affirm, were formed by a violent irruption of the ocean upon the land between the mountains Abyla and Calpe. The people of Ceylon have a tradition, that a similar irruption of the sea separated their island from the peninsula of India. The same is believed by the inhabitants of Malabar with respect to the Isles of Maldiva, and by the Malaysians with respect to Sumatra. Ceylon, as Buffon asserts, has lost thirty or forty leagues of land by the sea; and Tongres, a place in the Low Countries, has gained thirty leagues of land from the sea---and Florida and the southern American States have gained as much from the Bay of Mexico, and the islands between North and South America.---The northern part of Egypt owes its existence to inundations of the Nile---and the province
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of Yellow-River in China, and part of Louisiana in America, have both been formed by the mud of rivers. The peninsula of Yucatan has every appearance of having once formed a part of the bed of the sea. In the strait which separates America from Asia, many islands are found which probably were the mountains belonging to that part of the land which we suppose to have been swallowed up by earthquakes; which is rendered probable by the multitude of volcanoes which have been discovered in the peninsula of Kamtskatka. The sinking of that land, however, and the separation of the two continents, was probably occasioned by those extraordinary earthquakes mentioned in the histories of the Americans, which formed an era almost as memorable as that of the deluge.

The quadrupeds and reptiles of America passed by different places from one continent to the other. Among the American beasts there are many whose natures are averse to cold; such are apes, dantes, crocodiles, &c.---There are others formed to inhabit cold countries; such are martens, rein-deer, and gluttons. The former could not go to America through any country in the frigid zone;---their natures would not have admitted it---they would have perished in their passage.---We cannot indeed imagine what inducement they could have to quit a climate congenial to their nature, and undertake a journey they knew not whither, through a region whose cold they could not endure.---How did they know there was a country friendly to their natures in America?

The apes which are in New Spain passed there, certainly, from South America. Time was when they did not inhabit that country---and it is known that they came from the south. The centre of their population is the country under the equator, and fourteen or fifteen degrees on each side of it. It decreases as you depart from this tract on either side, till you arrive at the tropics, when it ceases, and none are found,
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except in some few districts, which from the peculiarity of their situation are as hot as the equinoctial country. None can imagine that this species of animals travelled into the new world through the cold regions of the north. Nor can we believe that they were transported thither by men; for, not to mention that some of them are of a ferocious disposition, and very unlikely to be selected to be companions on a long voyage, to people a new country, there is another still greater difficulty: as they could not have been conducted over the seas and countries of the north, on account of the cold, they must have been transported, from the warm countries of the old to the warm countries of the new world, over a sea subject to a climate not dissimilar to the native country of those quadrupeds, that is, by the countries of the southern parts of Asia, to about the same latitudes in America, over the Indian and Pacific Oceans---or from the western countries of Africa, to the eastern countries of America, over the Atlantic Ocean. If, therefore, men transported those animals from the one to the other world, they did it across those seas. But was this navigation accidental or designed? If the former, how and why did they carry so many animals with them? If the latter, if they were determined to pass from the old to the new continent, who gave them intelligence of the new world? Who shewed them the situation of those countries? How did they venture to cross such vast seas without a compass? In what vessels did they pass? If they landed there happily, why does there not remain among the Americans some memory of their construction. But it is needless to start more objections; these already mentioned can never be answered.

Besides, in the torrid zone, and the warm climates that border upon it, in the new world, crocodiles are common animals, which require a hot or temperate climate, and live alternately on land or in sweet water:

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how did such animals pass there? Not by the north--- they could not endure the cold.---No one would believe they were transported by men---nor yet that they swam thither two thousand miles through an ocean of salt-water.

There remains no other solution but that of admitting an ancient union between the equinoctial countries of America and Africa---and a connection of the northern countries of America with Europe on the east, and Asia on the west---so that there has probably been a period since the flood, when there was but one continent.---The beasts of cold climes passed over the northern isthmuses, which probably connected Europe, America, and Asia---and the animals and reptiles peculiar to hot countries passed over the isthmus that connected South America with Africa---For the reasons already mentioned induce us to believe that there was formerly a tract of land, which united the most eastern part of Brazil to the most western part of Africa; and that all the space of land may have been sunk by violent earthquakes, leaving only some traces of it in that chain of islands of which Cape de Verd, Fernando, de Norona, Ascension, and St. Matthew's, islands, make a part; and in those many sand-banks discovered by different navigators, and particularly by de Bauch, who sounded that sea with great exactness. These islands and sand-banks may probably have been the highest parts of that sunken isthmus. In like manner it is probable the north-western part of America was united to the north-eastern part of Asia by a neck of land which has been sunk or washed away, and the north-eastern parts of America to the north-western parts of Europe, by Greenland, Iceland, &c.

On the whole, we cannot but believe that the quadrupeds and the reptiles of the new world passed there by land, and by different routes, from the old continent. All other suppositions are subject to heavy difficulties; and this is not without some, which
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however are not altogether insurmountable. The greatest is the improbability of an earthquake so great as to sink a space of land for more than one thousand five hundred miles in length, which, according to our supposition, united Africa and South America. But we do not ascribe this stupendous revolution to a single shock---it may have been effected by a succession of earthquakes similar to those which lately happened in Calabria. It is well known that they are common in the climates where we suppose the isthmus to have been. It is not impossible nor improbable, that such an effect should be produced by earthquakes, nor is history unfurnished with such examples to our purpose. The earthquake which was felt in Canada in 1663, overwhelmed a chain of mountains of free stone more than three hundred miles long, and the whole of that immense tract was changed into a plain. How great then must have been the convulsion which was occasioned by those extraordinary earthquakes, mentioned in the histories of America, when the world was thought to be coming to an end!

It may farther be objected to this system, that, if beasts passed by land from one continent to the other, it is not easy to assign the cause why some species passed there without leaving a single individual in the old continent; and, on the contrary, that some entire species should remain in the old continent, and not a single individual of them pass to America. But this objection operates with equal force against all other opinions, except that which employs angels in the transportation of beasts. But suppose it did not, we have a satisfactory answer to it. All the quadrupeds of the earth are not yet known; we cannot therefore say how many there are in the one which are not in the other continent. The knowledge of the best-informed zoologists is very imperfect, and they differ among themselves. The Count de Buffon numbers only two hundred species of quadrupeds.

Bomare, who wrote a little after him, makes them two hundred and sixty-five; but to say how many more they may be, and of what kinds they are, until we have examined the interior regions of Africa, of a great part of Tartary, the country of the Amazons, and the vast territory west of the Mississippi, and various other unexplored and extensive countries, which together constitute a great part of the whole globe, would be mere conjecture. No argument therefore, can be inferred from the difference of the animals in the two continents against our system, till the animals in these unexplored regions shall have been examined. We have dwelt the longer on this subject, as it must be interesting to every inquisitive mind, and the discussion of it is blended with much useful information.

Having stated the present population of America, from the best *data* we could find, and given the most probable accounts of the manner in which it was originally peopled, we shall now describe its inhabitants.

The American Indians may be divided into three classes; first, the South American Indians, who came over, in the manner we have supposed, from the northern and western parts of Africa, and the southern parts of Asia and Europe. Secondly, the Mexicans and all the Indians south of the Lakes and west of the Mississippi. Thirdly, the inhabitants of Esquimaux, Labrador, and the countries around them.

With respect to the South Americans, various have been the accounts given of them. Some historians exalt them to the rank of the best and happiest people on earth; others seem unwilling to give them a place among human beings. We presume these historians, who differ so widely, spoke of different nations; and on this ground, with proper allowances for exaggeration on both sides, we may reconcile them. Columbus gives the following account of the Indians of Hispaniola, to Ferdinand and Isabella: "I swear to your majesties, that there is not a better people in the world
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than these; more affectionate, affable, and mild; they love their neighbours as themselves; their language is the sweetest, the softest, and the most cheerful, for they always speak smiling; and, although they go naked, let your majesties believe me, their customs are very becoming; and their king, who is served with great majesty, has such engaging manners, that it gives great pleasure to see him, and also to consider the great retentive faculty of that people, and their desire of knowledge, which invites them to ask the causes and effects of things."

Las Casas, the first bishop of Chiapa, who resided several years in different parts of America, speaks thus of them: "The Americans are a people of a bright and lively genius, easy to be taught, and to apprehend every good doctrine, extremely ready to embrace our faith, and the people, of all others in the world, who feel the least embarrassment by it." In another place, this writer says, "The Indians have as good an understanding, and acute a genius, as much docility and capacity for the moral and speculative sciences, and are, in most instances, as rational in their political government, as appears from many of their very prudent laws, and are as far advanced in our faith and religion, in good customs and civilization, where they have been taught by persons of religious and exemplary life, and are arriving at refinement and polish as fast as any nation ever did since the times of the apostles."

Dr. Robertson, speaking of the Mexicans and Peruvians, whom he is not disposed to rank with those nations which merit the name of civilised, has the following remarks: "When compared with other parts of the new world, Mexico and Peru may be considered as polished states. Instead of small independent, hostile, tribes, struggling for subsistence amidst woods and marshes, strangers to industry and arts, unacquainted with subordination, and almost without the appearance of regular government, we find countries

of great extent subjected to the dominion of one sovereign, the inhabitants collected together in cities, the wisdom and foresight of rulers employed in providing for the maintenance and security of the people, the empire of laws in some measure established, the authority of religion recognised, many of the arts essential to life brought to some degree of maturity, and the dawn of such as are ornamental beginning to appear." These are testimonies respecting the Indians who inhabit the more northern parts of South America, and the islands; who appear to have made greater advances in civilization than those farther south, concerning whom our information is very imperfect.

Charlevoix, in his history of Paraguay, has collected from the Jesuits perhaps the best information respecting the more southern Indians. Comparing his particular descriptions of the numerous nations who inhabit the southern division of South America, we give the following as the leading traits in their general character. They are generally of an olive complexion, some darker, others lighter, and some as white as the Spaniards. Their stature is rather below than above the middling size; though some nations rank among the tallest of the human species; most of them are thick legged and jointed, and have round and flat faces.

Almost all the men and children, in the warm climates, and in the summer in colder regions, go quite naked. The women wear no more covering than the most relaxed modesty seems absolutely to require. Every nation have a different dialect, and a different mode of adorning themselves. The clothing of such as make use of it is made of the skins of beasts, of feathers sewed together, and, in the southern and colder regions, where they raise sheep, of wool manufactured into stuffs and blankets. They are represented as almost universally addicted to drunkenness. There seems to be no other vice common to them all. A few of them are cannibals, and some
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nations are idolators ; in general they have some notions of a Supreme Being, and have words in their various languages to express their ideas of him. They believe in the immortality of the soul, and have some imperfect ideas of future rewards and punishments. They are universally addicted to various superstitions, and have much to do with witches and evil spirits. Father Pastor, a Jesuit, one day visited one of the old women of the Abipone nation, a reputed witch, and at the point of death, and told her, that, if she died without baptism, her soul would be eternally tormented by the devils. She very calmly answered, that they had been her friends a long time, and she was therefore very sure they would do her no harm. A great proportion of these people lead a wandering life, are extremely indolent, dirty, and wretched, living on fish, and the flesh of the various wild animals, birds, and even reptiles, which inhabit the forests. "All the Indians of South America," says Charlevoix, "have hot stomachs," which can digest all sorts of food, and in great quantities, and they are in general "excessively voracious." Their notions of religion and government, with a few exceptions, are very rude. Some nations live compactly in towns, and cultivate the earth, raising, among other productions, wheat, which they bruise between stones, and make it into cakes. Some nations are dull, cruel, and inconstant ; others as fierce, cunning, and thievish ; others as humane, ingenuous, and hospitable ; and in general they are kind and attentive to strangers, so long as they are used well by them ; and we seldom read of their being first in a quarrel with those who pass their territories, or sojourn among them. The astonishing success of the Jesuits in converting such multitudes of them to their faith, is a convictive proof of their capacity to receive instruction ; of their docility, humanity, and friendly dispositions. All accounts agree that the middle and southern parts of South America are very thinly inhabited, being inter-

interspersed with extensive ridges of mountains, immense barren plains, and numerous marshes.

As to the second class of American Indians, who formerly inhabited, and who yet inhabit, Mexico and the country south of the lakes and west of the Mississippi, and who came over, as we have supposed, from the north-east parts of Asia; they seem, from whatever cause, to be advanced somewhat higher in the scale of human beings than the South Americans, if we except the Peruvians, who have made greater progress in civilization than even the Mexicans. Concerning the nations of the vast country of Anahuac or New Spain, composing a large portion of the second class of the proper Americans, the Abbé Clavigero has the following observations: "We have had intimate commerce for years with the Americans, have lived several years in a seminary destined for their instruction, had some Indians among our pupils, had particular knowledge of many American rectors, many nobles, and numerous artists; attentively observed their character, their genius, their disposition, and manner of thinking; and have examined, besides, with the utmost diligence, their ancient history, their religion, their government, their laws, and their customs; after such long experience and study of them, from which we imagine ourselves able to decide without danger of erring, we declare, that the mental qualities of the American Indians are not in the least degree inferior to the Europeans; that they are capable of all, even the most abstract sciences; and that, if equal care and pains were taken in their education, we should see rise among them philosophers, mathematicians, and divines, who would rival the first in Europe. But it is not possible to make great progress in the sciences in the midst of a life of misery, servitude, and oppression. Their ancient government, their laws, and their arts, evidently demonstrate that they suffer no want of genius."

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This same author, who appears to be a competent judge, describes the Mexicans as being of a good stature, rather exceeding the middle size; well-proportioned in all their limbs; as having a fine olive complexion; narrow foreheads; black eyes; clean, firm, regular white teeth; thick, black, coarse, glossy, hair; thin beards, and generally no hair on their legs, thighs, and arms. They are neither very handsome, nor the reverse, but hold a middle place between the extremes. Some of the women are fair and beautiful. Deformities are scarcely known among them. Their senses are very acute, especially that of sight, which they enjoy unimpaired to the greatest age. They are moderate eaters, but much addicted to intemperance in drinking, which, as far as we know, is true of all the American Indians. They are patient of injuries and hardships, and grateful for benefits. Good faith is not so much respected as it deserves to be. They are naturally unsocial, serious, and austere, and are more anxious to punish crimes than to reward virtues. Generosity and perfect disinterestedness are striking traits in their character. Their religion is blended with much superstition; and some of the more ignorant are very prone to idolatry.

The respect paid by children to their parents, and by the young to the old, among those people, is highly commendable. Parents are fond of their children. The affection of husbands for their wives is less than the wives for their husbands; and it is very common for men to love their neighbours' wives better than their own. Courage and cowardice seem alternately to affect their minds, and it is difficult to determine which predominates. They can meet dangers in war, and such as proceed from natural causes, with great intrepidity, but are panic-struck at the stern look of a Spaniard. On the whole, their character, like that of all other nations, is a mixture of good and bad.

Of their morality, the following exhortation of a Mexican to his son may serve as a specimen: "My son,

son, who art come into the light, from the womb of thy mother like a chicken from the egg, and like it art preparing to fly through the world, we know not how long heaven will grant to us the enjoyment of that precious gem which we possess in thee; but, however short the period, endeavour to live exactly, praying God continually to assist thee. He created thee: thou art his property. He is thy father, and loves thee still more than I do; repose in him thy thoughts, and day and night direct thy sighs to him. Reverence and salute thy elders, and hold no one in contempt. To the poor and distressed be not dumb, but rather use words of comfort. Honour all persons, particularly thy parents, to whom thou owest obedience, respect, and service. Guard against imitating the examples of those wicked sons, who, like brutes, that are deprived of reason, neither reverence their parents, listen to their instruction, nor submit to their correction; because whoever follows their steps will come to an unhappy end, will die in a desperate or sudden manner, or will be killed and devoured by wild beasts."

Although so much cannot be said with truth, perhaps, in favour of the more northern Indians, whom we have included in the second class, owing to the inferiority of their advantages, yet we are far from thinking them inferior, in point of corporeal or mental endowments, to the Mexicans, to whom, in complexion, size, and form, they are not in general unlike. But, in all the social and domestic virtues, in agriculture, arts, and manufactures, they are far behind them; in their hospitality, they are equal; and in their eloquence in council, and bravery in war, perhaps superior. Their mode of life, and the state of society among them, afford few objects for the display either of their literary or political abilities.

Mons. Buffon has given an humiliating picture of the Aborigines of North America, which, as it is a false one, I shall not give to the reader. Mr. Jefferson's

son's answer to M. Buffon is so full of the most valuable information on this subject, that it must not be omitted in this place :---Of the Indians of South America, says Mr. Jefferson, I know nothing; for I would not honour with the appellation of knowledge what I derive from the fables published of them. These I believe to be just as true as the fables of Æsop. This belief is founded on what I have seen of man, white, red, and black; and what has been written of him by authors, enlightened themselves, and writing amidst an enlightened people. The Indian of North America being more within our reach, I can speak of him somewhat from my own knowledge, but more from the information of others better acquainted with him, and on whose truth and judgment I can rely. From these sources I am able to say, in contradiction to this representation, that he is neither more defective in ardour, nor more impotent with his female, than the white reduced to the same diet and exercise: that he is brave, when an enterprise depends upon bravery; education with him making the point of honour consist in the destruction of an enemy by stratagem, and in the preservation of his own person free from injury; or perhaps this is nature, while it is education which teaches us to honour force more than finesse: that he will defend himself against an host of enemies, always choosing to be killed rather than to surrender, though it be to the whites, who he knows will treat him well: that in other situations also he meets death with more deliberation, and endures tortures with a firmness unknown almost to religious enthusiasm with us: that he is affectionate to his children, careful of them, and indulgent in the extreme: that his affections comprehend his other connections, weakened, as with us, from circle to circle, as they recede from the centre: that his friendships are strong and faithful to the uttermost extremity: a remarkable instance of which appeared in the case of

the late Colonel Byrd, who was sent to the Cherokee nation to transact some business with them. It happened that some of our disorderly people had just killed one or two of that nation. It was therefore proposed in the council of the Cherokees that Colonel Byrd should be put to death, in revenge for the loss of their countrymen. Among them was a chief called Silouee, who on some former occasion had contracted an acquaintance and friendship with Colonel Byrd. He came to him every night in his tent, and told him not to be afraid, they should not kill him. After many days deliberation, however, the determination was, contrary to Silouee's expectation, that Byrd should be put to death; and some warriors were dispatched as executioners. Silouee attended them; and, when they entered the tent, he threw himself between them and Byrd, and said to the warriors, "This man is my friend: before you get at him you must kill me." On which they returned, and the council respected the principle so much as to recede from their determination. The sensibility of the American savage is remarkably keen, since even the warriors weep most bitterly on the loss of their children, though in general they endeavour to appear superior to human events: and his vivacity and activity of mind is equal to our's in the same situation; and hence his eagerness for hunting, and for games of chance. The women are submitted to unjust drudgery. This I believe is the case with every barbarous people. With such, force is law. The stronger sex therefore imposes on the weaker. It is civilization alone which replaces women in the enjoyment of their natural equality. That first teaches us to subdue the selfish passions, and to respect those rights in others which we value in ourselves. Were we in equal barbarism, our females would be equal drudges. The man with them is less strong than with us, but their women stronger than our's.

our's; and both for the same obvious reason: because our man and their woman is habituated to labour, and formed by it. With both races, the sex which is indulged with ease is least athletic. An Indian man is small in the hand and wrist, for the same reason for which a sailor is large and strong in the arms and shoulders, and a porter in the legs and thighs. They raise fewer children than we do. The causes of this are to be found, not in a difference of nature, but of circumstance. The women very frequently attending the men in their parties of war and of hunting, child-bearing becomes very inconvenient to them. It is said, therefore, that they have learnt the practice of procuring abortion by the use of some vegetable; and that it even extends to prevent conception for a considerable time after. During these parties they are exposed to numerous hazards, to excessive exertions, to the greatest extremities of hunger. Even at their homes the nations depend for food, through a certain part of every year, on the gleanings of the forest: that is, they experience a famine once in every year. With all animals, if the female be badly fed, or not fed at all, her young perish: and, if both male and female be reduced to like want, generation becomes less active, less productive. To the obstacles then of want and hazard, which nature has opposed to the multiplication of wild animals, for the purpose of restraining their numbers within certain bounds, those of labour and of voluntary abortion are added with the Indian. No wonder then if they multiply less than we do. Where food is regularly supplied, a single farm will shew more of cattle than a whole country of forests can of buffaloes. The same Indian women when married to white traders, who feed them and their children plentifully and regularly, who exempt them from excessive drudgery, who keep them stationary and unexposed to accident, produce and raise as many children as the white women. Instances are known, under these cir-

cumstances, of their rearing a dozen children. An inhuman practice once prevailed in this country of making slaves of the Indians. It is a fact well known with us, that the Indian women, so enslaved, produced and raised as numerous families as either the whites or blacks among whom they lived. It has been said, that Indians have less hair than the whites, except on the head. But this is a fact of which fair proof can scarcely be had. With them it is disgraceful to be hairy on the body. They say it likens them to hogs. They therefore pluck the hair as fast as it appears. But the traders who marry their women, and prevail on them to discontinue this practice, say, that nature is the same with them as with the whites. Nor, if the fact be true, is the consequence necessary which has been drawn from it. Negroes have notoriously less hair than the whites; yet they are more ardent. But, if cold and moisture be the agents of nature for diminishing the races of animals, how comes she all at once to suspend their operation as to the physical man of the new world, and to let loose their influence on his moral faculties? How has this combination of the elements and other physical causes, so contrary to the enlargement of animal nature in this new world, these obstacles to the developement and formation of great germs, been arrested and suspended so as to permit the human body to acquire its just dimensions; and by what inconceivable process has their action been directed on his mind alone? To judge of the truth of this, to form a just estimate of their genius and mental powers, more facts are wanting, and great allowance to be made for those circumstances of their situation which call for a display of particular talents only. This done, we should probably find that they are formed in mind, as well as in body, on the same model with the "*Homo sapiens Europæus*." The principles of their society forbidding all compulsion, they are to be led to duty and to enterprise by personal influence

influence and persuasion. Hence eloquence in council, bravery and address in war, become the foundations of all consequence with them. To these acquirements all their faculties are directed. Of their bravery and address in war we have multiplied proofs, because we have been the subjects on which they were exercised. Of their eminence in oratory we have fewer examples, because it is displayed chiefly in their own councils. Some however, we have of very superior lustre. I may challenge the whole orations of Demosthenes and Cicero, and of any more eminent orator, if Europe has furnished a more eminent, to produce a single passage superior to the speech of Logan, a Mingo chief, to Lord Dunmore, when governor of this state. And, as a testimony of their talents in this line, I beg leave to introduce it, first stating the incidents necessary for understanding it. In the spring of the year 1774, a robbery and murder was committed, on an inhabitant of the frontiers of Virginia, by two Indians of the Shawanee tribe. The neighbouring whites, according to their custom, undertook to punish this outrage in a summary way. Colonel Cresap, a man infamous for the many murders he had committed on those much-injured people, collected a party, and proceeded down the Kanhaway in quest of vengeance. Unfortunately a canoe of women and children, with one man only, was seen coming from the opposite shore, unarmed, and unsuspecting an hostile attack from the whites. Cresap and his party concealed themselves on the bank of the river, and the moment the canoe reached the shore, singled out their objects, and, at one fire, killed every person in it. This happened to be the family of Logan, who had long been distinguished as a friend of the whites. This unworthy return provoked his vengeance. He accordingly signalized himself in the war which ensued. In the autumn of the same year, a decisive battle was fought at the mouth of the great Kanhaway, between the collected

lected forces of the Shawanees, Mingoes, and Delawares, and a detachment of the Virginia militia. The Indians were defeated, and sued for peace. Logan however disdained to be seen among the suppliants. But, lest the sincerity of a treaty should be distrusted, from which so distinguished a chief absented himself, he sent by a messenger the following speech to be delivered to Lord Dunmore:

"I appeal to any white man to say, if he entered Logan's cabin hungry, and he gave him not meat; if he ever came cold and naked, and he clothed him not. During the course of the last long and bloody war, Logan remained idle in his cabin, an advocate for peace. Such was my love for the whites, that my countrymen pointed as they passed, and said, 'Logan is the friend of white men.' I had even thought to have lived with you, but for the injuries of one man. Colonel Cresap, the last spring, in cold blood, and unprovoked, murdered all the relations of Logan, not sparing even my women and children. There runs not a drop of my blood in the veins of any living creature. This called me on for revenge. I have sought it: I have killed many: I have fully glutted my vengeance. For my country, I rejoice at the beams of peace. But do not harbour a thought that mine is the joy of fear. Logan never felt fear. He will not turn on his heel to save his life. Who is there to mourn for Logan?---Not one."

No people in the world have higher notions of military honour than the North American Indians. The fortitude, the calmness, and even exultation, which they manifest whilst under the extremest torture, is owing to their education, to their exalted ideas of military glory, and their rude notions of future happiness, which they believe they shall forfeit by the least manifestation of fear, or uneasiness, under their sufferings. They are as bitter and determined in their resentments as they are sincere in their friendships, and
often

often pursue their enemies several hundred miles through the woods, surmounting every difficulty, in order to be revenged.

The following fact of an Algonquin woman, is a remarkable proof of their innate thirst for blood. That nation being at war with the Iroquois, she happened to be taken prisoner, and was carried to one of the villages belonging to them. Here she was stripped naked, and her hands and feet bound with ropes in one of their cabins. In this condition she remained ten days, the savages sleeping round her every night. The eleventh night, while they were asleep, she found means to disengage one of her hands, with which she immediately freed herself from the ropes, and went to the door. Though she had now an opportunity of escaping unperceived, her revengeful temper could not let slip so favourable an opportunity of killing one of her enemies. The attempt was manifestly at the hazard of her own life; yet, snatching up a hatchet, she killed the savage that lay next her; and, springing out of the cabin, concealed herself in a hollow tree which she had observed the day before. The groans of the dying person soon alarmed the other savages, and the young ones immediately set out in pursuit of her. Perceiving, from her tree, that they all took their course one way, and that no savage was near her, she left her sanctuary, and, flying by an opposite direction, ran into a forest without being perceived. The second day after this happened, her foot-steps were discovered; and they pursued her with such expedition, that the third day she discovered her enemies at some distance. Upon this she threw herself into a pond of water; and, diving among some weeds and bulrushes, she could just breathe above water without being perceived. Her pursuers, after making the most diligent search, were forced to return. For thirty-five days this woman held on her course through woods and deserts, without any other sustenance than roots and wild berries. When she

she came to the river St. Lawrence, she made with her own hands a kind of wicker raft, on which she crossed it. As she directed her course for Trois Rivières, without well knowing where she was, she perceived a canoe full of savages; and, fearing they might be Iroquois, ran again into the woods, where she remained till sun-set. Continuing her way soon after, she saw Trois Rivières; and was then discovered by a party of Hurons, a nation in alliance with the Algonquins. She then squatted down behind a bush, called out to them that she was not in a condition to be seen, because she was naked. They immediately threw her a blanket, and then conducted her to the fort, where she recounted her story.

In their public councils, the Indians observe the greatest decorum. In the foremost rank sit the old men, who are the counsellors, then the warriors, and next the women and children. As they keep no records, it is the business of the women to notice every thing that passes, to imprint it on their memories, and tell it to their children. They are, in short, the records of the council; and, with surprising exactness, preserve the stipulations of treaties entered into a hundred years back. Their kindness and hospitality are scarcely equalled by any civilized nation. Their politeness in conversation is even carried to excess, since it does not allow them to contradict any thing that is asserted in their presence. In short, there seems to be much truth in Dr. Franklin's observation, "We call them savages, because their manners differs from ours, which we think the perfection of civility; they think the same of theirs."

Society among the American Indians, we are sorry to say, has not been improved, but in most instances corrupted, by their intercourse with Europeans. It is believed by many, that the wars with them generally originate in the injustice, avarice, and pride, of their opposers and vanquishers. None, however, can justify their savage mode of carrying on a war, when once it

has commenced. If the guilty, or those who should conceal and defend the guilty, were the sole objects of their vengeance, we could not condemn them. But when those who never did or meant them an injury, when defenceless women, and children, and even babes, are made the victims of their shocking barbarity, we cannot but deeply lament their want of that humanity, and just discrimination between the innocent and the guilty, which are the peculiar fruits of civilization. We wish we could say, that they never had any examples of indiscriminate barbarity from their European neighbours, who ought to have taught them better.

The Indians many times treat their prisoners in the most cruel and barbarous manner; but they often use them with the greatest humanity, feeding and clothing them even better than themselves, and adopting them as fathers, mothers, sons, and daughters, brothers and sisters, and treating them in all respects as such. There have been instances of whites, thus adopted, while young, who have become chiefs of the nations that adopted them. Compulsion has frequently been found necessary to separate from their Indian relations, those white prisoners who have resided a few years with them; and many men and women, who have been ransomed and delivered up by the Indians to their white parents or relations, have returned back to their Indian friends, and, of choice, married and settled among them.

Mr. Stewart, a late enterprising traveller into the country west of the Mississippi, who took his course west-south-west from the posts on the Lakes, and penetrated to the head of the Missouri, and thence due west till he arrived within about five hundred miles of the Pacific Ocean, informs us, that beyond the Missouri he met with many powerful nations of Indians, who were in general courteous and hospitable. The nations which he visited to the westward appeared to be a polished, civilized, people, having regularly-

built towns, and enjoying a state of society not far removed from the European; and, in order to be perfectly equal, wanting only the use of iron and steel. Their clothing is of skins, cut in an elegant manner, and in many respects preferable to the garments in use among the whites. Adjacent to these nations is a vast range of mountains, which may be called the *Allegany* of the western parts of America, and serves as a barrier against the too frequent incursions of the coast Indians, who, Mr. Stewart relates, appear to be inveterate enemies to the tribes eastward of the mountains.

The North American Indians are unacquainted with letters, and their history is preserved in some few instances by hieroglyphic paintings and sculpture, but principally by tradition. They often discover great ingenuity in communicating information to the absent. The following instance of Indian hieroglyphic writing, Dr. Mitchel was an eye-witness to. Being in company with several other gentlemen, as they were proceeding up Onondago river, to an Indian treaty, they overtook several canoes of Senaka Indians, who encamped with them at night near fort Brewington; and, the next day proving rainy, they continued in company till the weather became so favourable as to permit them to cross the Oneida Lake. During the storm, one of the canoes stove, and became unfit for service. The commissioners took the crew on-board their boat, and carried them to a landing-place some distance up Wood Creek. Here one of them, before he left the water, took the following method, to let his companions, who were left behind, know when and whither they had proceeded. He took a piece of wood, and hewed it flat and smooth, and then raked his fire for a suitable coal, with which he rudely delineated, on the slab, the figure of an Indian carrying a gun reversed upon his shoulder. In front of him he drew a crooked line, which reached to a man with a long coat and cocked hat, and holding a cane in his hand; and behind him
a framed

a framed house. He then took a strait pole, and tied some weeds, and grafs upon one end of it, and fixed the other in the earth, in such a manner, that, in the position the sun then was, which was six o'clock in the morning, it cast no shadow; or, in other words, he pointed it exactly towards the sun. The meaning of all was this: "Susquewewah (the name of the Indian) left this spot at six o'clock in the morning, or when the sun was in the place where the pole pointed, and has proceeded up Wood Creek, (which is remarkably crooked) to the settlement where the commissioners of the State of New York are assembled to hold a treaty with the Indians." All these *insignia* were arranged so conspicuously on the margin of the creek, that his companions behind could scarcely avoid observing them as they passed.

In the interior parts of America various monuments of art have been found, which discover greater ingenuity in their construction than the present generation of Indians appear to possess. Two miles west of the Genessee river, in the State of New York, we have been informed, are the remains of an ancient Indian fort. It encloses about four acres; is encompassed with a ditch eight feet wide and five or six feet deep, and has six gateways. Its form is circular, except on one part, which is defended by nature with a high bank, at the foot of which is a fine stream of water; there is an appearance of there having been a deep covered way through the middle of the bank to the water. Some of the trees on the bank and in the ditch look as if they had been growing an hundred and fifty or two hundred years. Half a mile south, on an eminence, are the ruins of another Indian fortified town, of smaller dimensions, and more advantageously situated for defence. The old Indians say these forts were built before the Senakas were admitted into confederacy with the Mohawks, Onondagos, Oneidas, and Cayogas, and while the Senakas were at war with the

Mississuages, and other Indians, on the Great Lakes, which Mr. Kirkland conjectures, from various accounts that he received from different tribes, was at least three hundred years ago.

A few miles from the above-mentioned forts, at a place which the Senakas call Tegateenedaghque, signifying a town with a fort at each end, are the remains of two other forts, constructed nearly in the same form, with six gates, a ditch, and a stream of water, and a covered way to it. Near the northern fort, are the ruins of a funeral pile, six feet high, and twenty or thirty feet diameter, where were buried eight hundred Indians, who, according to tradition, fell in a famous battle fought at this place, between the Senakas, who were the victors, and the western Indians. The weapons of war then in use were bows and arrows, the spear or javelin pointed with bone, and the war-club, or death-mall. When the former fort of weapons were expended, they came to close engagement with the latter. The warriors wore a short jacket made of willow sticks or moose wood, laced tight round their bodies; on their head, they wore a cap of the same kind, but commonly wove double, the better to secure them against a mortal blow from the death-mall. The battle above mentioned was fought, some of the Indians say three hundred, some four hundred, and some five hundred, lives or ages ago, and long before the arrival of the Europeans. They commonly reckon a life or an age, one hundred winters or colds.

Mr. Kirkland observes, that there are similar vestiges of ancient fortified towns throughout the extensive territories of the Six Nations, and, by Indian report, in various other parts, and particularly on a branch of the Delaware river, which appear to be very ancient. He adds, "I find, on enquiring, that a tradition prevails among the Indians in general, that all Indians came from the west." This is a confirmation of the opinion that this second class of Indians, of whom we have been





A native Savage of America

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been speaking, and of which the Six Nations make a part, came over from the north-east of Asia, to the north-west coast of America, whence they migrated south towards Mexico, and eastward into the present territory of the United States.

Judging of the ancient Indians from the traditionary accounts of them, and the ruins we have been describing, we are led to conceive of them as a more civilized, ingenious, and warlike, people, than their descendants at the present time. We are at a loss for the causes of their degeneracy, unless we mention as such the introduction of spirituous liquors among them, a deep sense of their inferiority in military skill to the white people, and their chagrin and broken heartedness at the loss of their lands and being forced to give place to their supposed enemies.

The third class of American Indians, viz. those who inhabit Esquimaux, Labrador, and the countries around, are much less known than either of the aforementioned classes. Those who profess to be best acquainted with them say, they differ in size and shape from the other American Indians, and resemble the Laplanders, Greenlanders, and Samoiedes, from whom it is conjectured they are descended.

In the years 1771 and 1772, Mr. Hearne, an ingenious young gentleman, travelled many hundred miles into these dreary countries: and, in his journal draws a plain artless picture of the modes of life, the scanty means of subsistence, and the singular wretchedness in almost every respect, of the various tribes, who, without fixed habitations, pass their lives in roving over the dreary deserts and frozen lakes of the extensive tract of continent through which he passed. The following extracts from his Journal will give the reader a better and more just idea of these Indians than any accounts of them which the author can furnish from any other source.

“We

“We arrived at the Copper-mine river on the 13th of July 1771; and, as I found afterwards, about forty miles from its exit into the sea. On our arrival at the river, the Indians dispatched three men before, as spies, to see if any Esquimaux Indians were about the river: and, on the fifteenth of the same month, as I was continuing my survey towards the mouth of the river, I met the spies, who informed me there were five tents of Esquimaux on the west side of the river, and, by their accounts of the distance, I judged they were about twelve miles off. On receiving this news, no more attention was paid to my survey, but their whole thought was engaged on planning the best method of stealing on them the ensuing night, and killing them while asleep. The better to complete their design it was necessary to cross the river; and, by the account of the spies, no place was so proper for that purpose as where we were, it being fine and smooth, and at some distance from any cataract. Accordingly, after they had put their guns, targets, spears, &c. in order, we were ferried over the river, the doing of which (as we had only three canoes) took up a considerable time. It must be observed, that before we set out on the west side, all the men painted their targets, some with the image of the sun, others with the moon, others with different kinds of birds and beasts of prey, and some had the images of fairies and other imaginary beings on them, which, according to their silly imaginations, are inhabitants of the different elements, as the earth, sea, air, &c. By a strict inquiry into the reason of this superstition, I found that each man had the image of that being painted on his target which he relied most on for success in the intended battle with the Esquimaux: and some were contented with a single representation; whilst others, doubtful, I suppose, of the power of any single being, would have their targets covered to the very margin with hieroglyphics, quite unintelligible,

“This

“This piece of superstition being completed, we began to advance towards the tents of the Esquimaux, always walking in low grounds, and being very careful how we crossed any hills, for fear of being seen by the inhabitants. The number of my gang being so far superior to the five tents of Esquimaux, and the war-like manner in which they were equipped, in proportion to what might be expected of the poor Esquimaux, rendered a total massacre inevitable, unless kind Providence should work a miracle for their preservation. The land was so situated, that we walked under cover of the hills till we came within two hundred yards of their tents, where the Indians that were with me lay some time in ambush, watching the motions of the Esquimaux (for we were in full sight of their tents). The Indians advised me to stay here till the fight was over, with which I would by no means comply; for I thought, when the Esquimaux were surprised, they would fly every where for refuge, and if they found me alone, not knowing me from an enemy, they would lay violent hands on me when there were none to assist. I therefore determined to accompany them, assuring them at the same time that I would have no hand in the murder unless I found it necessary for my own safety. They seemed highly pleased with my proposal, and directly fixed a spear and bayonet for me, but I had no target. By the time this was all settled it was near one o'clock in the morning, when, finding all the Esquimaux asleep in their tents, they ran on them without being discovered, until they came close to their very doors. They then began the cruel massacre, while I stood neuter in the rear, and in a few seconds a scene truly shocking presented itself to my view. For, as the poor unhappy victims were surprised in the midst of their sleep, they had neither power nor time to make any resistance; but men, women, and children, ran out of their tents quite naked. But, alas, where could they fly for shelter! They
every

every soul fell a sacrifice to Indian barbarity, in all near thirty. The shrieks and groans of the poor expiring souls were truly horrible; and this was much increased by the sight of one poor girl, about eighteen years old, whom they killed so near to me, that, when the first spear was struck into her, she fell down and twisted about my feet and legs, and it was with much difficulty I disengaged myself from her dying grasps. As the Indians pursued her, I solicited for her life; but so far was it from being granted, that I was not fully assured of my own being in entire safety for offering to speak in her behalf. When I begged her life, the two fellows that followed her made no reply, till they had both their spears through her fixed into the ground: they then both looked me sternly in the face, and began to upbraid me, by asking me if I wanted an Esquimaux wife; at the same time paying no regard to the loud shrieks of the poor girl who was twining round the spears like an eel. Indeed I was obliged at last to desire that they would be more expeditious in dispatching her out of her misery, lest otherwise I should be obliged out of pity, to assist in performing that friendly office. The brutish manner in which they used the bodies, which they had deprived of life, is too shocking, and would be too indecent, to describe; and the terror of mind I was in from such a situation is so much easier to be conceived than described, that I shall not attempt it. When they had completed this most inhuman murder, we observed seven more tents on the opposite side of the river. The Indians of these tents were soon in great confusion, but did not offer to make their escape. The Indians fired many shot at them across the river; but the poor Esquimaux were so unacquainted with the nature of guns, that when the bullets struck the rocks they ran in great bodies to see what was sent them, and seemed curious in examining the pieces of lead which they found flatted on the rocks, till at last one man was shot through the
leg,

leg, after which they embarked in their canoes, with their wives and children, and paddled to a shoal in the river. When my Indians had made all their observations on the bodies, as above-mentioned, and had plundered their tents of all their copper-work (which they and the Copper Indians used instead of iron), they assembled at the top of an high hill, standing in a circle with their spears erect in the air, and gave shouts of victory, calling out *Tima! Tima!* by way of derision to the surviving Esquimaux who were standing on the shoal. We then went up the river about half a mile, to the place where our canoes and baggage were, with an intent to cross over and plunder the other seven tents. It taking up a considerable time to get all across the river, as we had only three canoes, and being entirely under cover of the rocks, the poor Esquimaux whom we left on the shoal thought we were gone about our own business, and had returned to their tents again. And the land was so situated on the east side that the Indians went under cover of the hills, until they were within an hundred yards of their tents, where they saw the Esquimaux busy in tying up their bundles. They ran on them again with great fury; but, having their canoes ready, they all embarked, and reached the shoals before-mentioned, except one poor old man, who, being too attentive in tying up his things, had not time to reach his canoe, and so fell a sacrifice to Indian fury. After the Indians had plundered these tents of what they thought worth their notice, they threw their tent-poles into the river, broke their stone kettles, and did all they could to distress the poor survivors. We found an aged woman at a small distance up the river, snaring of salmon, whom they butchered in the same manner, every man having a thrust at her with his spear." The other extract is as follows:

"This day, January the 11th, 1772, as the Indians were hunting, some of them saw a strange snow-shoe track, which they followed, and at a considerable dis-

tance, came to a little hut, where they found a young woman sitting alone. They brought her to the tents, and on examining her found that she was one of the western dog-ribbed Indians, and had been taken prisoner by the Arathapescow Indians, in the summer of 1770; and when the Indians, who took her prisoner, were near this place in 1771, she eloped from them, with an intent to return to her own country. But it being so far off, and when she was taken prisoner having come all the way in canoes, with the winding of rivers and lakes, she had forgot the way, and had been in this little hut ever since the beginning of fall. By her account of the moons past since her elopement, it appears to have been the middle of last July when she left the Arapathescow Indians, and she had not seen a human face since. She had supported herself by snaring rabbits, partridges, and squirrels, and was now in good health, and I think as fine a woman, of a real Indian, as I have seen in any part of North America. She had nothing to make snares of but the sinews of rabbits legs and feet, which she twisted together for that purpose; and of the rabbits skins had made a neat and warm winter's clothing. The stock of materials she took with her when she eloped, consisted of about five inches of an iron hoop for a knife, a stone steel, and other hard stones for flints, together with other fire tackle, as tinder, &c. about an inch and an half of the shank of the shoeing of an arrow, of iron, of which she made an awl. She had not been long at the tents, before half a score of men wrestled to see who should have her for a wife. She says, that when the Arathapescow Indians took her prisoner they stole upon the tents in the night, when all the inhabitants were asleep, and murdered every soul, except herself and three other young women. Her father, mother, and husband, were in the same tent with her, and they were all killed. Her child, of about five months old, she took with her, wrapt in a bundle of her own clothing, undiscovered,

undiscovered, in the night. But when she arrived at the place where the Arathapescows had left their wives, which was not far off, it being then day-break, these Indian women immediately began to examine her bundle; and, having there found the child, took it from her and killed it immediately. The relation of this shocking scene only served the savages of my gang for laughter. Her country is so far to the westward, that she says she never saw any iron or other metal till she was taken prisoner; those of her tribe making their hatchets and chissels of deer's horns, and knives of stone and bone; their arrows are shod with a kind of slate, bone, and deer's horns, and their instruments to make their wood-work are nothing but beaver's teeth. They have frequently heard of the useful materials that the nations to the east of them are supplied with from the English; but, instead of drawing nearer to be in the way of trading for iron-work, &c. are obliged to remove farther back to avoid the Arathapescow Indians, as they make surprising slaughter among them every year, both winter and summer."

The Esquimaux, according to Mr. Pennant, are distinguished from the tribes south of them, chiefly by their dress, their canoes, and their instruments of chase. He divides them into two varieties. About Prince William's Sound they are of the largest size. As you advance northward they decrease in height, till they dwindle into the dwarfish tribes, which occupy some of the coasts of the Icy Sea, and the maritime parts of Hudson's Bay, of Greenland, and Labrador. Their dwarfishness is doubtless occasioned by the scantiness of their provisions, and the severity of their climate. Beyond the sixty-seventh degree north latitude, according to Captain Ellis's account, there are no inhabitants. The Arctic countries in America, Asia, and Greenland, if inhabited at all, have very few inhabitants; and those are of the dwarfish kind, scattered on the banks of rivers, lakes, and seas, and subsist miserably

ferably upon fish, and the flesh of those animals which inhabit those frozen regions, with the skins of which they clothe themselves.

Mr. Crantz gives it as his opinion, that the Esquimaux came originally from the north-east regions of Great Tartary, between the Icy Sea and Mungalia; because he observes a greater affinity between them and the Kalmucks, Tanguses, and Kamskadales, who inhabit those regions, than between them and the Laplanders, Samoiedes, and Ostiacks, who inhabit the north-west parts of Europe, whence, it has generally been conjectured, the Esquimaux migrated. It is his opinion also, that Greenland was settled in the fourteenth century, from the north-eastern parts of America; for, till that period, Greenland appears not to have had any inhabitants. The route which the first migrants took, he supposes was, first into Tartary, after the dispersion of the nations, thence into Kamtskatka, thence across the strait which separates the two continents; whence they spread themselves unmolested, into the then uninhabited countries round Hudson's Bay, and down as far south as Canada. And here they were found in the eleventh century, by the Norwegians, in their Wineland. Afterwards these more southerly regions were conquered by the more numerous and powerful tribes south of the Lakes, and the Esquimaux were forced to retire as far north as the sixtieth degree north latitude. Here Captain Ellis found the Esquimaux, in his voyage to Hudson's Bay, and discovered that they had the same aspect, dress, boats, hunting and fishing implements, habitations, manners, and usages, as the Greenlanders. They are often pursued and hunted, as we have seen above, by the other Indians, who live about the south and west shores of Hudson's Bay, and who appear to be quite a different people.

The newly-discovered American Indians about Nootka Sound disguise themselves after the manner
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of the ancient Scythians, in dresses made of the skins of wolves and other wild beasts, and wear even the heads fitted to their own. These habits they use in the chase to circumvent the animals of the field.

Concerning the religion of the Indians much has been said, and much that has no foundation. In general it may be said, that they have all an idea of a Supreme Being, whom they worship under different names, and with a great variety of superstitious rites and ceremonies. Some, particularly the nations of the Algonquin language, call their Supreme God the *Great Hare*; some *Michabou*, and others *Atabocan*. The Being opposed to this *First Spirit*, whom they considered as the Creator and Governor of the world they styled the *Great Tiger*.

The name of the Hurons' Supreme God, or more properly their God of War, is *Areskoui*; of the Iroquois, *Agreskoufe*; but most of the nations south of the Lakes, as far as Louisiana, denominate their Supreme God, the *Great*, the *Good*, or the *Grand, Spirit*, to whom they ascribe a kind of omnipresence, and whom they invoke as their guardian. To their evil genii they never address themselves, except to entreat them not to do them any injury; and to appease their wrath they often sacrifice to them. Mr. Kirkland mentions a small lake, which he visited, situated at the foot of a precipice, nearly fifty feet perpendicular height, in the territory of the Six Nations, in which, the old Indians affirm, resided formerly a demon in the shape of a dragon, and that he had been seen frequently to disgorge balls of liquid fire. To appease his wrath, they said, many a sacrifice of tobacco had been made at the lake by their fathers.

The country on the north western part of the continent of America, bounded by the Pacific Ocean, notwithstanding the late discoveries, is yet, in a great measure, unexplored. This coast is inhabited by numerous but small tribes of Indians; each tribe appears

to be independent and governed by its own chief. They differ from each other in their language and customs. The neighbouring tribes are frequently involved in wars with each other. It is impossible to ascertain with any degree of certainty the number of inhabitants; but they have been computed at ten thousand, from Cook's River to Nootka Sound, an extent of about one thousand miles. Captain Portlock saw at Cape Edgecomb several men much marked with the small-pox; and was informed that the distemper carried off great numbers of the inhabitants. From what circumstances he could collect, he conjectured it was brought by the Spaniards, who were there in 1775. The natives are for the most part short in stature: their faces, men and women, are in general flat and round, with high cheek-bones and flat noses; and their teeth white and regular. Their complexions are lighter than the southern Indians, and some of their women have rosy cheeks. Both sexes are fond of ornamenting themselves with beads and trinkets, and they generally paint their hands and faces. They have a custom of making a longitudinal slit in the under lip, between the mouth and chin, some of them as large as the mouth, in which they wear a piece of bone, wood, or ivory, fitted with holes in it, from which they suspend beads, as low as the chin. They are very fond of masks or visors, and various kinds of caps painted with different devices, such as birds, beasts, fishes, and sometimes representations of the human face. They have likewise many devices carved in wood, which are greatly valued by them. There appears to be a greater uniformity in the dress of the different tribes than in their ornaments. The aperture, or second mouth, above the chin, seems confined to the men of Cook's river and Prince William's Sound; whilst the wooden ornament in the under lip, is worn by the women only in that part of the coast from Port Mulgrave to Queen Charlotte's Islands.---
Thieving

Thieving is a very prevalent inclination among them, which is practised, not only upon strangers, but among themselves. In the course of their trading, they are frequently seen to steal from each other, and on being detected they will give up the articles stolen with a laugh, and immediately appear as unconcerned as if nothing had happened. Their habitations are generally the most wretched that can be conceived; a few poles stuck in the ground, without regularity, loosely covered with bark, constitute their huts, which are quite insufficient to shelter them from the snow and rain, and the insides of their dwellings exhibit a complete picture of filth and indolence. In one corner are thrown the bones and remaining fragments of victuals left at their meals; in another, heaps of fish and putrified flesh, grease, oil, &c. In short, the whole serves to shew in how wretched a state it is possible for human beings to exist.

They subsist wholly by fishing and hunting. Their clothing is made of the skins of animals and birds; and the probable reason why these Indians take no greater pains in the construction of their habitations, is, that their situation is merely temporary; for no sooner does the master of a tribe find game begin to grow scarce, or fish not so plenty as he expected, than he takes down his hut, puts the boards or barks into his canoe, and paddles away to seek a spot better adapted to his purposes; which having found, he erects his dwelling in the same careless manner as before.

The chief object of civilized nations in navigating this coast hitherto has been to traffic with the natives for furs; which they give in exchange for pieces of iron, nails, beads, penknives, and other trifling trinkets. These furs are carried to China and disposed of to a great profit. The skins obtained are those of the sea-otter, racoon, pine-marten, land-beaver, earless mammot, &c.

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The inhabitants of the Sandwich Islands, discovered by Captain Cook, are much commended, notwithstanding their horrid custom of eating human flesh. In every thing manufactured by them there is an ingenuity and neatness in an uncommon degree; and the elegant form and polish of some of their fishing-hooks could not be exceeded by an European artist, even assisted by all his proper tools. From what was seen of their agriculture also, it appeared that they were by no means novices in that art, and that the quantity and goodness of their vegetable productions might with propriety be attributed as much to their skilful culture as to the fertility of the soil. The language of the Sandwich Isles is almost identically the same with that of Otaheite.

Farther to the northward is the coast of New Albion, also discovered by Captain Cook, on the seventh of March 1778. When he landed, the natives seemed at first to prefer iron to every other article of commerce; but at last they shewed such a predilection for brass, that scarcely a bit of it was left in the ships, except what belonged to the necessary instruments. It was observed also, that these people were much more tenacious of their property than any of the savage nations that had hitherto been met with, inso-much that they would part neither with wood, water, grass, nor the most trifling article, without a compensation, and were sometimes very unreasonable in their demands; with which, however, Captain Cook always complied as far as was in his power.

The place where the Resolution was anchored was by this celebrated navigator called St. George's Sound, but he afterwards understood that the natives gave it the name of Nootka. Its entrance is situated in the east corner of Hope Bay; in north latitude forty-nine degrees and thirty-three minutes, east longitude two hundred and thirty-three degrees and twelve minutes. The climate, as far as they had an opportunity of observing

-serving it, was much milder than that on the eastern coast of the American continent in the same parallel of latitude: and it was remarkable that the thermometer, even in the night, never fell lower than forty-two degrees, while in the day-time it frequently rose to sixty degrees. The trees met with here are chiefly the Canadian pine, white cypress, and some other kinds of pine. There seemed to be a scarcity of birds, which are much harassed by the natives, who ornament their clothes with the feathers, and use the flesh for food. The people are no strangers to the use of metals, having iron tools in general use among them; and Mr. Gore procured two silver spoons, of a construction similar to what may be observed in some Flemish pictures, from a native who wore them round his neck as an ornament. It is most probable that these metals have been conveyed to them by the way of Hudson's Bay and Canada; nor is it improbable that some of them may have been introduced from the north-western parts of Mexico.

Proceeding farther to the northward, Captain Cook fell in with a race of people who had evidently been visited by the Russians, and seemed to have adopted from them some improvements in dress, &c. In the prosecution of this part of the voyage it appeared that they had been providentially conveyed in the dark through a passage so dangerous, that the commander would not have ventured upon it in the day-time. They were now got in among those islands which had lately been discovered by Captain Beering and other Russian navigators, and came to an anchor in a harbour of Oonalashka, situated in north latitude fifty-three degrees and fifty-five minutes, east longitude one hundred and ninety-three degrees and thirty minutes. Here it was remarked that the inhabitants had as yet profited very little by their intercourse with the Russians; so that they did not even dress the fish they used for their food, but devoured them quite raw.

With regard to the natives of Oonalashka, they are to appearance the most inoffensive and peaceable people in the world, not to be in a state of civilization; though perhaps this may be owing in some measure to the connection they have long had with the Russians. From the affinity observed between the language of the Esquimaux, Greenlanders, and those of Norton's Sound, in north latitude sixty-four degrees and fifty-five minutes, there is great reason to believe, that all those nations are of the same extraction; and, if that be the case, there is little reason to doubt, that a communication, by sea, exists between the eastern and western sides of the American continent; which, however, may probably be shut up by ice in the winter time, or even for the most part throughout the year.

The natives of Washington Island, which Captain Cook next passed, are in general well made, robust, active, and athletic; and of a larger size than those on the opposite continent, and of a lighter complexion. Their hair is very harsh and long, and tied back with a piece of red cedar bark. The women have a very singular mode of ornamenting, or rather of disfiguring, themselves, by making, when very young, a small hole in the under lip, and putting in a small piece or plug of wood, for the purpose of keeping it distended. By frequently increasing the size of this plug, as they advance in age, by the time they are five and twenty, the hole becomes large enough to contain a piece of wood two inches long, and about an inch wide, the upper part of which is dug out in the form of a spoon, which serves both for ornament and use, as it is used at their meals to contain the oil for their fish. This custom, however, is not general throughout the island. Their war implements, which they have frequent occasion to use, some or other of the tribes being almost perpetually at war, are spears about fifteen feet long, with the ends pointed with shells or stone, and bows and arrows. The iron which they obtain in traffic is
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immediately converted into ornaments for the neck, and into knives. Their mode of working it could not be discovered. It is a custom in some of the tribes, when a prisoner offends them, for the chiefs to kill and eat him. Mr. Cordis, who spent some time among them, was an eye-witness to one instance of this kind, as he found a piece of human flesh with an Indian woman, the wife of a chief, of which she ate, and appeared to be fond. Their common diet is dried fish and their spawn, mixed with a large quantity of fish-oil. They sometimes, when they have no fire near, eat small fish raw, just as they are taken from the water.

Their habitations are small huts of a triangular form, constructed of poles, and the bark of cedar trees, with a small hole for a door. They frequently remove from place to place, as the fish go up or down the river. The men are extremely jealous of their wives, but chastity is not among the virtues of the young unmarried women. Both men and women generally paint themselves red or black, every morning. Their dress consists of skins thrown over their shoulders, and tied round their necks with a leathern thong; the rest part of their bodies is entirely naked, except the women, who sometimes, but not always, have a skin fastened round their waist.

Their method of disposing of their dead is very singular. They put the corpse into a square box; if the box happens to be too small for the body, they cut off the head, or other parts of it, which they put into the vacant places. This being done, the box is secured by having several mats wound round it, and then is hoisted into the top of the highest tree in the neighbourhood, where it is fastened and left till the box decays and drops in pieces. Though frequently asked, they would not tell their reasons for this custom.

The manner of treating the dead, on the continent opposite the island, is somewhat different. They put the

the dead body into a square box, when it is become a little putrified, and secure it well with cords. After this the relations of the deceased seat themselves on the box, and, with an instrument made of a shell, cut their faces till they are covered with blood, speaking all the while in a loud and melancholy tone. This ceremony being over, they wash themselves, and return to the company with great gaiety. The corpse is then put under a great tree, and covered with mats and earth, and left to be devoured by wild beasts.

In the Island of O-why-hee, the men are above the middle size, stout, well-made, and fleshy, but not fat. Their colour is brown olive. The women are in general masculine, though there are some delicately made, and the voice of them all is soft and feminine. The hair both of the head and beard is black; that on the head the men wear in the form of a helmet, that is, a long frizzled ridge from the forehead to the neck, the sides being much shorter.

Both men and women appeared to be of a good disposition, and behaved to each other with the tenderest regard. The custom of tattowing prevails greatly among them; but the men have a much larger share of it than the women: many (particularly some of the natives of Mow-whee) have one half their body, from head to foot, marked in this manner, which gives them a most striking appearance. It is done with great regularity, and looks remarkably neat: some have only an arm marked in this manner, others a leg; some again have both arm and leg, and others only the hand. The women are for the most part marked upon the hand, and some upon the tip of their tongue. Both sexes have a particular mark according to the district in which they live; or it is rather the mark of the aee, or principal man, under whose jurisdiction they more immediately are. Both men and women are very cleanly in their persons; the latter wash their whole bodies in fresh water twice and sometimes three

times a-day. There are no people in the world who indulge themselves more in their sensual appetite than these: in fact they carry it to most scandalous and shameful degree, and in a manner not proper to be mentioned. The ladies are very lavish of their favours; yet some of their attachments seem purely the effect of affection. They are initiated into this way of life at an early period; we saw some who could not be more than ten years old.

Their dress consists of cloth of different kinds: that worn by the men, which is called *marro*, is about half a yard wide, and four yards long; that of the women, three quarters of a yard wide, and of the same length as the men: this they call *pab-ô ouwa*; they both wear it round their middle, but the men pass it between their legs. The principal ornaments of the men are the feather caps and cloaks; some of the latter reach down to their heels, and have a most magnificent appearance. They are made for the most part of red and yellow feathers, which are tied upon fine net-work.---The women too have their share in the ornamental way: that which they value most is the *orai*. This is a kind of ruff or necklace, made of red, green, black, and yellow, feathers, curiously put together and in most elegant patterns. They never think themselves dressed without one or two of these round their necks, and those who can afford it wear many. Others again are composed of small variegated shells, disposed in a very neat manner; and some consist of several rows of twisted hair, with a piece of carved wood or bone, highly polished, the bottom part forming a curve. The higher the quality of the wearer, the greater is the size of the wood or bone, and the quantity of the twisted hair. The next thing is the *poo-remah* or bracelet; the most valuable are made of boar's tusks fastened together side by side with a piece of string, by means of a hole drilled through the middle; the larger the tusks, the greater the value.

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Sometimes two shells tied round the wrists, with twisted or braided hair, serve the purpose of bracelets; but even in this case they shew great nicety, being particularly careful to match them as near as possible. There are supposed to be on this island about one hundred and fifty thousand inhabitants. So long as the name of Captain Cook shall be remembered, Owhy-hee will not be forgotten; for he here fell a victim to a strange concatenation of causes, which I shall briefly mention.

Seven weeks were spent by Captain Cook in exploring the coasts of this island; and during all this time he continued to have the most friendly intercourse with the people. Several of the chiefs had attached themselves greatly to the commander, and in general the people appeared to be much more honest in their dispositions than any whom he had ever visited. But by the time he had finished his circumnavigation of the island, and cast anchor in a bay called Karakakooa, matters were greatly altered. An universal disposition to theft and plunder had now taken place; and in this it was evident that the common people were encouraged by their chiefs, who shared the booty with them. Still, however, no hostilities were commenced: the greatest honours were paid to the commander; and, on his going ashore, he was received with ceremonies little short of adoration. A vast quantity of hogs and other provisions were procured for the ships; and on the fourth of February 1779, they left the island, not without most magnificent presents from the chiefs, and such as they had never before received in any part of the world. Unluckily they met with a storm on the sixth and seventh of the same month; during which the Resolution sprung the head of her foremast in such a manner that they were obliged to return to Karakakooa bay to have it repaired. As they returned, Captain Cook had an opportunity of shewing his humanity to the people by the relief he afforded to some
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of their canoes which had suffered in the storm. The same friendly intercourse which had formerly been held with the natives now commenced, and Captain Cook was treated with the usual honours; but on the 13th of this month it was unhappily broken off on the following account. One of the natives, being detected in stealing the tongs from the armourer's forge in the *Discovery*, was dismissed with a severe flogging; but this example was so far from being attended with any good effect, that in the afternoon another, having snatched up the tongs and a chissel, jumped overboard with them and swam for the shore. The master and midshipman were instantly dispatched in pursuit of him; but he escaped on-board a canoe, which paddled away so quickly that the cutter could not come near it. A chief named Pareah, who was at this time on-board the *Resolution*, understanding what had happened, promised to go ashore and get back the stolen goods; but before this could be done the thief had made his escape into the country. Captain Cook, who was at that time ashore, had endeavoured to intercept the canoe when it landed, but was led out of the way by some of the natives who pretended to be his guides. The tongs and chissel, however, were brought back to the master as he advanced to the landing-place; but he, being now joined by some of the rest of the people in the pinnace, could not be satisfied with the recovery of the stolen goods, but insisted upon having the thief or the canoe which carried him by way of reprisal. On his preparing to launch this last into the water, he was interrupted by Pareah, who insisted that it was his property, and that he should not take it away. As the officer paid no regard to his remonstrances, Pareah, who seems to have been a very strong man, seized him, pinioned his arms behind, and held him fast by the hair of the head. On this one of the sailors struck the chief with an oar; on which, quitting the officer, he instantly snatched the oar out of the man's hand,

hand, and broke it in two accross his knee. The Indians then attacked the sailors with stones, and soon drove them to their boats, to which they were forced to swim, as they lay at some distance from the shore. The officers who could not swim retired to a small rock, where they were closely pursued by the Indians; and here the master narrowly escaped with his life, till Pareah returned and obliged the Indians to give over their attacks. The gentlemen, sensible that Pareah's presence alone could protect them, entreated him to remain with them till they could be brought off in the boats. On his refusal, the master set out to the place where the observatories had been erected, for farther assistance; but Pareah, who met him, and, suspecting his errand, obliged him to return. In the mean time the multitude had begun to break in pieces the pinnace, after having taken every thing out of her that was loose: on the return of Pareah, however, they were again dispersed, and some of their oars restored, after which the gentlemen were glad to get off in safety. Before they reached the ship Pareah overtook them in a canoe, and delivered the midshipman's cap which had been taken from him in the scuffle; he also joined noses with them in token of friendship, and desired to know whether Captain Cook would kill him on account of what had happened. They assured him that he would not, and made signs of reconciliation on their part. On this he left them, and paddled over to the town of Kavaroah; and that was the last time he was seen by the English. In the night-time the centinels were much alarmed by shrill and melancholy sounds from the adjacent villages, which they took to be the lamentations of the women. Next day it was found that the large cutter of the *Discovery* had been carried off in the night-time; on which Captain Cook ordered the launch and small cutter to go under the command of the second lieutenant, and to lie off the east point of the bay in order to intercept
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all the canoes that might attempt to get out, and if necessary to fire upon them. The third lieutenant of the Resolution was dispatched to the western part of the bay on the same service; while the master was sent in pursuit of a large double canoe already under sail, and making the best of her way out of the harbour. He soon came up with her, and, by firing a few shots, obliged her to run on-shore, and the Indians to leave her. This was the canoe belonging to a chief named Omea, whose person was reckoned equally sacred with that of the king, and to the neglect of securing him we may attribute the succeeding disaster. Captain Cook now formed the resolution of going in person to seize the king himself in his capital of Kavaruah; and, as there was reason to suppose that he had fled, it was his design to secure the large canoes, which on that account he caused to be hauled up on the beach. With this view he left the ship about seven o'clock in the morning of Sunday the 14th of February, being attended by the lieutenant of marines, a serjeant, corporal, and seven private men. The crew of the pinnace, under the command of Mr. Roberts, were also armed; and, as they rowed towards the shore, the captain ordered the launch to leave her station at the opposite point of the bay, in order to assist his own boat. Having landed with the marines at the upper end of the town, the Indians flocked round him, and prostrated themselves before him. No sign of hostility, nor even much alarm, appeared; the king's sons waited on the commander as soon as he sent for them, and by their means he was introduced to the king, who readily consented to go on-board; but in a little time the Indians began to arm themselves with long spears, clubs, and daggers, and to put on thick mats which they use as defensive armour. This hostile appearance was greatly augmented by an unlucky piece of news which was just now brought by a canoe, viz. that one of the Indian chiefs had been killed by the

people in the Discovery's boats. On this the women, who had hitherto sat on the beach conversing familiarly, and taking their breakfasts, removed, and a confused murmur ran through the crowd. An old priest now appeared with a cocoa-nut in his hand, which he held out as a present to Captain Cook, singing all the while, and making a most troublesome noise as if he meant to divert the attention of the captain and his people from observing the motions of the Indians, who were now every where putting on their armour. Captain Cook, beginning to think his situation dangerous, ordered the lieutenant of the marines to march towards the shore, as he himself did, having all the while hold of the king's hand, who very readily accompanied him, attended by his wife, two sons, and several chiefs. The Indians made a lane for them to pass; and as the distance they had to go was only about fifty or sixty yards, and the boats lay at no more than five or six yards distance from land, there was not the least apprehension of the catastrophe which ensued. The king's youngest son Keowa went on-board the pinnace without the least hesitation, and the king was about to follow, when his wife threw her arms about his neck, and, with the assistance of two chiefs, forced him to sit down. The captain might now have safely got aboard, but did not immediately relinquish the design of taking the king along with him. Finding at last, however, that this could not be accomplished without a great deal of bloodshed, he was on the point of giving orders for the people to re-embark, when one of the Indians threw a stone at him. This insult was returned by the captain, who had a double-barrelled piece, by a discharge of small shot from one of the barrels. This had little effect, as the man had a thick mat before him; and, as he now brandished his spear, the captain knocked him down with his musket. The king's son, Keowa, still remained in the pinnace, and the detaining him would have been a great check upon
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the Indians ; but unluckily Mr. Roberts, who commanded the pinnace, set him ashore at his own request soon after the first fire. In the mean time another Indian was observed in the act of brandishing his spear at the commander ; who thereupon was obliged to fire upon him in his own defence. Missing his aim, however, he killed one close by his side ; upon which the serjeant, observing that he had missed the man he aimed at, received orders to fire also, which he did, and killed him on the spot. This repressed the foremost of the Indians, and made them fall back in a body ; but they were urged on again by those behind, and discharged a volley of stones among the marines, who immediately returned it by a general discharge of their muskets ; and this was instantly followed by a fire from the boats. Captain Cook expressed his astonishment at their firing, waved his hand to them to cease, and called to the people in the boats to come nearer to receive the marines. This order was obeyed by Mr. Roberts ; but the lieutenant who commanded the launch, instead of coming nearer, put off to a greater distance ; and by this preposterous conduct deprived the unfortunate commander of the only chance he had for his life ; for now the Indians, exasperated by the fire of the marines, rushed in upon them and drove them into the water, leaving the captain alone upon the rock. A fire indeed was kept up by both boats ; but the one was too far off, and the other crowded with the marines, so that they could not direct their fire with proper effect. Captain Cook was then observed making for the pinnace, carrying his musket under his arm, and holding his other hand on the back-part of his head to guard it from the stones. An Indian was seen following him, but with marks of fear, as he stopped once or twice seemingly undetermined to proceed. At last he struck the captain on the back of the head with a club, and then precipitately retreated. The latter staggered a few

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paces, and then fell on his hand and one knee, and dropped his musquet. Before he could recover himself another Indian stabbed him with a dagger in the neck, though still without putting an end to his life. He fell into a pool of water knee-deep, where others crowded upon him; but still he struggled violently with them, got up his head, and looked towards the pinnacle as if soliciting assistance. The boat was not above five or six yards distant; but such was the confused and crowded state of the crew, that no assistance could be given him. The Indians then got him under again, but in deeper water, though he still continued to struggle, and once more got his head up; but, being quite spent, he turned towards the rock as if to support himself by it, when a savage struck him with a club, which probably put an end to his life, as he was never seen to struggle any more. The savages hauled his lifeless body upon the rocks, and used it in the most barbarous manner, snatching the daggers out of one another's hands, in order to have the pleasure of mangling it. If any thing could add to the misfortune of this celebrated navigator's death, it was, that even his mangled remains were not saved from the hands of the barbarians. The lieutenant already mentioned, who, by his removing to a distance when he ought to have come on-shore, seemed to have been the occasion of his death, returned on-board without making any attempt to recover his body; though it appeared from the testimonies of four or five midshipmen who arrived soon after at the fatal spot, that the beach was almost deserted by the Indians, they having at last yielded to the continual fire from the boats. The officer alleged in his own excuse for removing at first from the shore, that he mistook the signals: but, be this as it will, the complaints against him were so many and so great, that Captain Clerke was obliged publicly to take notice of them, and to take the depositions of his accusers in writing.---These papers, however, were not found,
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and it is supposed that the captain's bad state of health had induced him to destroy them. After all, we are informed, that, in the opinion of Captain Philips, who commanded the marines, it is doubtful whether any effectual relief could have been given to the commander, even if no mistake had been committed on the part of the lieutenant. The author of all the mischief was Pareah, the chief already mentioned, who had employed people to steal the boat in the night-time. The king was entirely innocent both of the theft and the murder of Captain Cook; but the latter was perpetrated by some chiefs who were his near relations. The chief who first struck him with a club was named *Karimans Raba*, and he who stabbed him with the dagger was called *Nooab*. The latter, Mr. Samwell, from whose narrative this account is taken, observes, was stout and tall, had a fierce look and demeanour, and united in his person the two properties of strength and agility more than he had ever observed in any other person.---Both of them were held in great estimation by their countrymen on account of the hand they had in his death.

By reason of the barbarous disposition of the Indians, it was found impossible to recover Captain Cook's body after the first opportunity already mentioned was lost. By dint of threats and negotiations, however, some of the principal parts were procured with great difficulty; by which the navigators were enabled to perform the last offices to their much-respected commander. These being put into a coffin, and the service read over them, were committed to the deep with the usual military honours on the 21st of February 1779. Soon after his death a letter was issued by M. de Sartine, secretary to the marine department of France, and sent to all the commanders of French ships, importing, that Captain Cook should be treated as the commander of a neutral and allied power; and that all captains of armed vessels who might meet with him,

him, should make him acquainted with the king's orders, but at the same time let him know, that on his part he must refrain from hostilities. This humane and generous proceeding, with regard to France, originated from Mr. Turgot; but the thought seems first to have struck Dr. Franklin. Thus much at least is certain, that the doctor, while ambassador from the United States, wrote a circular letter to the American naval commanders something to the purport of that already mentioned; but in this he was not supported by Congress; for an edict was immediately issued, that special care should be taken to seize Captain Cook if an opportunity of doing it occurred. The Spaniards proceeded in the same manner, and both acted on a principle equally mean and absurd, That the obtaining a knowledge of the western coast of America, or of a northern passage into the Pacific Ocean, might be attended with some bad consequence to their respective states.---But to return from this unavoidable digression, upon which every reader will make his own comments, I shall now proceed to finish my review of the natives of the residue of these newly-discovered islands.

The several groupes of islands which constitute the northern Archipelago, are situated between the eastern coast of Kamtschatka and the western coast of the continent of America. Some of these islands are only inhabited occasionally, and for some months in the year, and others are very thinly peopled; but others have a great number of inhabitants, who constantly reside in them. The inhabitants of these islands are, in general, of a short stature, with strong and robust limbs, but free and supple. They have lank black hair, and little beard, flattish faces, and fair skins. They are for the most part well made, and of strong constitutions, suitable to the boisterous climate of their isles.

The Fox Islands, one of the groupes, are so called from the great number of black, grey, and red, foxes,
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with which they abound. The dress of the inhabitants consists of a cap, and a fur coat, which reaches down to the knee. Some of them wear common caps of a party-coloured bird skin, upon which they leave part of their wings and tail. On the fore part of their hunting and fishing caps, they place a small board like a skreen, adorned with the jaw-bones of sea-bears, and ornamented with glass beads, which they receive in barter from the Russians. At their festivals and dancing parties they use a more shewy sort of caps. They feed upon the flesh of all sorts of sea-animals, and generally eat it raw; but, if at any time they choose to dress their victuals, they make use of a hollow stone; having placed the fish or flesh therein, they cover it with another, and close the interstices with lime or clay; they then lay it horizontally upon two stones, and light a fire under it. The provision intended for keeping is dried without salt in the open air. Their weapons consist of bows, arrows, and darts; and for defence they use wooden shields.

The most perfect equality reigns among these islanders. They have neither chiefs nor superiors, neither laws nor punishments. They live together in families, and societies of several families united, which form what they call a race, who, in case of an attack, or defence, mutually help and support each other. The inhabitants of the same island always pretend to be of the same race; and every person looks upon his island as a possession, the property of which is common to all the individuals of the same society. Feasts are very common among them, and more particularly when the inhabitants of one island are visited by those of the others. The men of the village meet their guests beating drums, and preceded by the women, who dance. At the conclusion of the dance, the hosts serve up their best provisions, and invite their guests to partake of the feast. They feed their children when very young with the coarsest flesh, and for the most
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part raw. If an infant cries, the mother immediately carries it to the sea-side, and, whether it be summer or winter, holds it naked in the water until it is quiet. This custom is so far from doing the children any harm, that it hardens them against the cold, and they accordingly go barefooted through the winter without the least inconvenience. They seldom heat their dwellings; but, when they are desirous of warming themselves, they light a bundle of hay, and stand over it; or else they set fire to train oil, which they pour into a hollow stone. They have a good share of plain natural sense, but are rather slow of understanding. They seem cold and indifferent in most of their actions; but let an injury or even suspicion only rouse them from this phlegmatic state, and they become inflexible and furious, taking the most violent revenge, without any regard to the consequences. The least affliction prompts them to suicide; the apprehension of even an uncertain evil often leads them to despair; and they put an end to their days with great apparent insensibility.

The Pelew Islands were probably known to the Spaniards at a distant period; but from a report among the neighbouring islands, of their being inhabited by a savage race of cannibals, it appears that there had never been the least communication between them and any of the Europeans, till the Antelope packet, (belonging to the East India Company) was wrecked on one of them, in August 1783. Captain Wilson, who commanded the packet, had very fortunately a servant recommended to him at Macao, who spoke both the Malay and English languages perfectly well; and they had not been long at Pelew before they had the good luck to meet with a Malay, who had been thrown by a tempest upon this very spot about a year before, and had made himself acquainted with the language of the country; so that by this extraordinary event each party had an interpreter who could readily explain

explain their wants and desires, and by that means prevent a number of misconceptions which might have arisen from making use of signs and gestures only.

The natives are all of a deep copper colour, going perfectly naked. They are of a middling stature, very straight, muscular, and well formed; but their legs, from a little above their ankles to the middle of their thighs, are tattooed so very thick, as to appear dyed of a far deeper colour than the rest of their skin. Their hair is of a fine black, long, and rolled up behind in a simple manner close to the back of their heads, which appeared both neat and becoming; but few of them had beards, it being the general custom to pluck them out by the roots.

They began by stroking the bodies and arms of the English, or rather their waistcoats and coat-sleeves, as if they doubted whether the garment and the man were not of the same substance; and, as the Malay explained the circumstances to them, our people were greatly surprised at the quickness with which they seemed to comprehend every information he gave them. The next thing they noticed was our people's white hands, and the blue veins of their wrists; the former of which they seemed to consider as artificial, and the other as the English manner of tattooing. After being satisfied in this particular, they expressed a further wish to see their bodies; and, among other things, were greatly surprised at finding hair on their breasts, it being considered by them as a great mark of indelicacy, as it is their custom to eradicate it from every part of the body in both sexes.

They afterwards walked about, testifying great curiosity at every thing they saw, but at the same time expressing a fear that they might be thought too intruding. As our people were conducting them to the tents, one of the natives picked up a bullet, which had been casually dropped on the ground, and immediately expressed his surprise, that a substance so small

to the eye should be so very ponderous to the touch; and, on their entering the tent, a large Newfoundland dog and a spaniel, which had been tied up there to prevent their being lost, set up a most violent barking, and the natives a noise but a little less loud, which at first was not easy to account for. They ran in and out of the tent, and seemed to wish that they might be made to bark again. This the Malay soon explained to be the effect of their joy and surprise, as these were the first large animals they had ever seen, there being no quadruped of any species on these islands, except a very few grey rats in the woods.

After some time it was agreed on by Captain Wilson and his people, that some of the crew should be sent to the king of the place, in order to solicit his friendship, and intreat his permission to build a vessel that might carry them back to their own country. This business was allotted to the captain's brother; and, during his absence, Raa Kook, the king's brother, and several of the natives, remained with our people. This amiable chief seemed to place an entire confidence in those he was among; he endeavoured to accommodate himself to their manners; would sit at table as they did, instead of squatting on his hams; and inquired particularly into the principles and causes of every thing he observed about him, lending his personal assistance in all that was going forward, and even desiring the cook to let him aid him in blowing the fire.

After three or four days, Abba Thulle the king arrived with a great retinue. He was received with every mark of respect by the ship's company, who were exercised before him, and fired three volleys in different positions. The surprise of the natives, their hooting, hallowing, jumping, and chattering, produced a noise almost equal to the discharge of the musquets; and when one of the men shot a bird, which was done to display the effect of their arms, the surprise it occasioned

caſioned was wonderful. Some of the natives ran for it, and carried it to the king, who examined it with great attention, but was unable to comprehend how it could be wounded, not having ſeen any thing paſs out of the gun.

Some time after this the king requested five of Captain Wilſon's men to attend him in a war he was going to make againſt the inhabitants of a neighbouring iſland called Oroolong, who, as he ſaid, had done him an injury. But, before this requeſt was made known, he had long ſtruggled with a delicacy of ſentiment which no one could have expected to find in regions ſo diſjoined from the reſt of mankind. This was no other than that it might have a temporary inconvenience to the unfortunate ſtrangers who had ſought his protection, and might be conſidered by them as an ungenerous proceeding. It was, however, no ſooner made known, than Captain Wilſon inſtantly complied; and every face, which had before been clouded with doubt and apprehenſion, became immediately brightened and gay.

In this enterpriſe little more was done than braving their enemies, ſtripping ſome cocoa-nut trees of their fruit, and carrying off a number of yams and other proviſions; but in another, which was undertaken againſt the Iſland of Artingall, they were more ſucceſſful, and ſhewed ſigns of the ſame ſanguinary diſpoſition which ſome demon has infused into the whole human race. Nine priſoners of war who had been taken upon this occaſion were cruelly put to death; and, notwithstanding the Engliſh ſtrongly remonſtrated againſt this proceeding, all the arguments they could uſe were of no avail. In juſtification of their conduct, they alledged the neceſſity of doing it for their own ſecurity, declaring that they had formerly only detained them as menial ſervants, but that they always found means to get back to their own country, and return with ſuch a force as frequently made great depredations.

The most wonderful circumstances in the history of this people, are the acuteness of their understanding, their hospitality, and the implicit confidence which they placed in utter strangers. That their manners were pleasing, and their society not disagreeable, is evident from the conduct of Madan Blanchard, one of seamen, who, when the vessel was built and ready to take her departure with his captain and his companions, was left behind at his own particular request. That they had the fullest confidence in Captain Wilson and his crew, is put beyond a doubt by the behaviour of the king and Raa Kook when their guests were to leave them. Raa Kook solicited his brother's permission to accompany the English, but from prudential motives was refused. The sovereign, however, resolved to entrust his second son Lee Boo to Captain Wilson's care, that he might improve his mind, and learn such things as at his return would benefit his country.

The instructions which he gave the young man, and the fortitude which he shewed upon this occasion, would have done honour to the most enlightened mind. Upon delivering him to Captain Wilson, he used these expressions: "I would wish you to inform Lee Boo of all things which he ought to know, and make him an Englishman." As soon as they arrived at Macao, the house into which he first entered, and the different articles of furniture, fixed him in silent admiration; but what struck his imagination most was the upright walls and flat ceilings of the rooms, being utterly unable to comprehend how they could be so formed. When he was introduced to the ladies of the family, his deportment was so easy and polite, that it could be exceeded by nothing but his abundant good-nature; and at his departure, his behaviour left on the mind of every one present the impression, that, however great the surprise might be which the scenes of a new world had awakened in him, it could hardly be exceeded by that which
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his own amiable manners and native polish would excite in others.

They were now conducted to the house of an English gentleman, who introduced them into a large hall, which was lighted up, with a table in the middle, covered for supper, and a sideboard handsomely decorated. Here a new scene burst at once upon Le Boo's mind; he was all eye, all admiration. The vessels of glass particularly rivetted his attention; but, when he surveyed himself in a large pier-glass at the upper end of the hall, he was in raptures with the deception. It was in truth, to him, a scene of magic, a fairy tale.

Soon after the people of the vessel came on-shore, some of them went to purchase things they were in want of; in doing which they did not forget Lee Boo, who was a favourite with them all. Among the trinkets they brought him was a string of large glass beads, the first sight of which almost threw him into an ecstasy: he hugged them with a transport which could not have been exceeded by the interested possessor of a string of oriental pearls. His imagination suggested to him that he held in his hand all the wealth the world could afford him. He ran with eagerness to Captain Wilson to shew him his riches, and begged he would get him a Chinese vessel to carry them to the king his father, that he might see what the English had done for him; adding, that, if the people faithfully executed their charge, he would at their return present them with one or two beads as a reward for their services.

He was proceeding with hasty strides in gaining the English language, writing, and accounts, when he was overtaken by that fatal disease, the small-pox, which the greatest pains had been taken to guard him against; and, notwithstanding the utmost care and attention of his physician, he fell a victim to this scourge of the human race. Upon this trying occasion, his spirit was above complaining, his thoughts being all engrossed by
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the kindness of his benefactor and friends. He told his attendant, that his father and mother would grieve very much, for they knew he was sick. This he repeated several times, "and begged him to go to Pelew, and tell Abba Thulle that Lee Boo take much drink to make small-pox go away, but he die; that the captain and mother very kind; all English very good men; much sorry he could not speak to the king the number of fine things the English had got." Then he reckoned up the presents which had been given him, desiring that they might be properly distributed among the chiefs, and requesting that particular care might be taken of two glass pedestals, which he begged might be presented to his father.

We have given this short history of Lee Boo, because it exhibits in a strong light the manners of the natives of the Pelew islands, to which we know nothing similar in the history of man from the savage state to that of civilization. They appear to have had no communication with any other people, and were yet neither treacherous, cruel, nor cowardly. They are a striking instance of the weakness of all the philosophic theories by which mankind are usually traced from their origin through the several stages of savagism, barbarism, and civilization, down to the period of refinement, ending in effeminacy.

Otaheite, or King George's Island, was discovered by Captain Wallis in the Dolphin, on the 19th of June, 1767; afterwards M. Bougainville touched here; and it was visited by Captain Cook in 1773 and 1774.

The natives of Otaheite are a stout, well-made, active, and comely, people. The stature of the men, in general, is from five feet seven to five feet ten inches; the tallest man seen by Captain Wallis measured six feet three inches and a half; and Captain Cook, in his second voyage, describes O-Too, the king of Otaheite, to be of that height. "In order to paint
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an Hercules or a Mars," says M. de Bougainville, "one could no where find such beautiful models." They are of a pale-brown complexion; in general their hair is black, and finely frizzled; they have black eyes, flat noses, large mouths, and fine white teeth; the men wear their beards in many fashions, all of them plucking out a great part, and have prominent bellies. Most of them smell strong of the cocoa-nut oil. The women in general are much smaller, especially those of the lower rank of tawtows, which is attributed to their early and promiscuous intercourse with the men; whilst the better sort, who do not gratify their passions in the same unbridled manner, are above the middle stature of Europeans. Their skin is most delicately smooth and soft; they have no colour in their cheeks; their nose is generally somewhat flat, but their eyes are full of expression, and their teeth beautifully even and white. "The women," says M. de Bougainville, "have features not less agreeable than the generality of Europeans, and a symmetry of body and beautiful proportion of limbs which might vie with any of them. The complexion of the men is tawny; but those who go upon the water are much more red than those who live on shore. Some have their hair brown, red, or flaxen, in which they are exceptions to all the natives of Asia, Africa, and America, who have their hair black universally; here, in the children of both sexes, it is generally flaxen. The strongest expression is painted in the countenances of these people; their walk is graceful, and all their motions are performed with great vigour and ease." "I never beheld statelier men," (says Sidney Parkinson.) The men of consequence on the island wear the nails of their fingers long, which they consider as a very honourable badge of distinction, since only such people as have no occasion to work can suffer them to grow to that length. This custom they have in common with the Chinese; but the nail of the middle finger on the right hand

hand is always kept short, the meaning for which peculiarity could not be learned. Only one single cripple was met with among them, and he appeared to have been maimed by a fall. The women always cut their hair short round their heads. Both sexes use that custom of staining their bodies, which they call tatooing; both men and women have the hinder part of their thighs and loins marked very thick with black lines in various forms; these marks are made by striking the teeth of an instrument somewhat like a comb just through the skin, and rubbing into the punctures a kind of paste made of foot and oil, which leaves an indelible stain. The boys and girls under twelve years of age are not marked; a few of the men, whose legs were marked in chequers by the same method, appeared to be persons of superior rank and authority. Sir Joseph Banks saw the operation of tatooing performed upon the backside of a girl about thirteen years old. The instrument used upon this occasion had thirty teeth; and every stroke, of which at least an hundred were made in a minute, drew an ichor of serum a little tinged with blood. The girl bore it with most stoical resolution for about a quarter of an hour; but the pain of so many hundred punctures as she had received in that time, then became intolerable. She first complained in murmurs, then wept, and at last burst into loud lamentations, earnestly imploring the operator to desist. He was, however, inexorable; and, when she began to struggle, she was held down by two women, who sometimes soothed and sometimes chid her; and now and then, when she was most unruly, gave her a smart blow. Sir Joseph staid in a neighbouring house an hour, and the operation was not over when he went away; yet it was performed but on one side, the other having been done some time before; and the arches upon the loins, in which they most pride themselves, and which give more pain than all the rest, were still to be done. Both men and women are not only

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decently but gracefully clothed, in a kind of white cloth that is made of the bark of a shrub, and very much resembles coarse China paper. Their dress consists of two pieces of this cloth: one of them, having a hole made in the middle to put the head through, hangs from the shoulders to the mid-leg before and behind; another piece, which is between four and five yards long, and about one yard broad, they wrap round the body in a very easy manner: this cloth is not woven; but is made like paper of the macerated fibres of the inner bark spread out and beaten together. Their ornaments are feathers, flowers, pieces of shell, and pearls; the pearls are worn chiefly by the women. In wet weather they wear matting of different kinds, as their cloth will not bear wetting.

Their candles are made of the kernels of a kind of oily nut, which they stick one above another on a skewer that is thrust through the middle of them; the upper one being lighted burns to the second, at the same time consuming that part of the skewer that goes through it; the second taking fire burns in the same manner down to the third, and so to the last; they burn a considerable time, and afford a pretty good light. The natives generally retire to rest about an hour after it is dark.

They eat alone, or at least only in company with a guest that happens to call in; and the men and women never sit down together at a meal: the shade of a spreading tree serves them for a parlour; broad leaves spread in great abundance serve for a table-cloth; and, if a person of rank, he is attended by a number of servants who seat themselves round him: before he begins his meal, he washes his mouth and hands very clean, and repeats this several times whilst he is eating. The quantity of food which these people eat at a meal is prodigious. Captain Cook says, he has seen one man devour two or three fishes as big as a perch; three bread-fruits, each bigger than two fists; fourteen or

fifteen plantains, or bananas, each six or seven inches long and four or five round; and near a quart of the pounded bread-fruit. Men of rank are constantly fed by their women; and one of these chiefs who dined on-board the ships in 1769, shewed such reluctance to feed himself, that one of the servants was obliged to feed him to prevent his returning without his meal.

That these people, who are remarkably fond of society, and particularly that of their women, should exclude its pleasures from the table, where, among all other nations, whether civil or savage, they have been principally enjoyed, is truly inexplicable. How a meal, which every where else brings families and friends together, comes to separate them here, was a singularity much inquired about, but never accounted for. "They ate alone. (they said), because it was right;" but why it was right to eat alone, they never attempted to explain. Such, however, was the force of habit in this instance, as it is in every other, that they expressed the strongest dislike, and even disgust, at their visitants eating in society, especially with women, and of the same victuals. "At first (says Captain Cook) we thought this strange singularity arose from some superstitious opinion; but they constantly affirmed the contrary. We observed also some caprices in the custom, for which we could as little account as the custom itself. We could never prevail with any of the women to partake of the victuals at our table, when we were dining in company; yet they would go five or six together into the servants apartments, and there eat very heartily of whatever they could find: nor were they in the least disconcerted if we came in while they were doing it. When any of us have been alone with a woman, she has sometimes eaten in our company; but then she has expressed the greatest unwillingness that it should be known, and always extorted the strongest promises of secrecy. Among themselves, even two brothers and two sisters have each their separate baskets

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of provisions, and the apparatus of their meal. When they first visited us at our tents, each brought his basket with him; and, when we sat down to table, they would go out, sit down upon the ground, at two or three yards distance from each other, and turning their faces different ways take their repast without exchanging a single word. The women not only abstain from eating with the men, and of the same victuals, but even have their victuals separately prepared by boys kept for that purpose, who deposit it in a separate shed, and attend them with it at their meals. But though they would not eat with us, or with each other, they have often asked us to eat with them, when we have visited those with whom we were particularly acquainted at their houses; and we have often upon such occasions eaten out of the same basket, and drank out of the same cup. The elder women, however, always appeared offended at this liberty; and if we happened to touch their victuals, or even the basket that contained it, they would throw it away."

The venereal disease is said to have been entailed upon these people by the crew of M. de Bougainville's ships, who visited this island a short time after Captain Wallis had left it. In 1769, more than one half of the crew in Captain Cook's ship had contracted it, during a month's stay here. The natives distinguished it by a name of the same import with rottenness, but of a more extensive signification. They described, in the most pathetic terms, the sufferings which the first victims to its rage endured; and told him that it caused the hair and the nails to fall off, and the flesh to rot from the bones; that it spread an universal terror and consternation among the inhabitants, so that the sick were abandoned by their nearest relations, lest the calamity should spread by contagion, and were left to perish alone in such misery as till then had never been known among them. But there seems to be some reason to hope that they had found out a specific cure for

it, as none were seen on whom it had made a great progress; and one, who went from the ship infected, returned, after a short time, in perfect health. Both Captain Cook and Mr. Forster, in their relations of their voyage in the Resolution, endeavour to establish the opinion, that this scourge of licentiousness was felt in the South Sea islands previous to any of the modern voyages that have been made thither, and that it was an indigenous disease there. But, if that conclusion is well-founded, how comes it, that at all the places where the Resolution touched in 1773, which had been before visited by the Endeavour in 1769, such as New Zealand for instance, the crew, more or less, became infected by their commerce with the women, and not at all so at places which they visited, for the first time, in the Resolution?

The weapons of the Otaheiteans are slings, which they use with great dexterity; pikes headed with the skins of sting-rays; and clubs of about six or seven feet long, made of a very hard wood. Thus armed, they are said to fight with great obstinacy; and to give no quarter to man, woman, or child, who happens to fall into their hands during the battle, nor for some time afterwards, till their passion subsides. They have likewise bows and arrows; but the arrows are good for nothing except to bring down a bird, being headed only with stone, and none of them pointed. They have targets of a semicircular form, made of wicker-work, and plaited strings of the cocoa-nut fibres, covered with glossy bluish-green feathers belonging to a kind of pigeon, and ornamented with many shark's-teeth arranged in three concentric circles.

Their boats or canoes are of three different sorts. Some of them cut out of a single tree, and hold from two to six men. These are principally employed in fishing: the others are constructed of planks very dexterously sewed together; they are of different sizes, and will hold from ten to forty men: they generally
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lash two of these together; and set up two masts between them; or if they are single, they have an on-trigger on one side, and only one mast in the middle; and in these vessels they will sail far beyond the sight of land. The third sort seems to be principally designed for pleasure or show. These are very large, but have no sail; and in shape resemble the gondolas of Venice. The middle is covered with a large awning; and some of the people sit upon it, and some under it. The plank of which these vessels are constructed, is made by splitting a tree, with the grain, into as many thin pieces as possible. The boards are brought to the thickness of about an inch, and are afterwards fitted to the boat with the same exactness that might be expected from an expert joiner. To fasten these planks together holes are bored with a piece of bone, fixed into a stick for that purpose. Through these holes a kind of plaited cordage is passed, so as to hold the planks strongly together. The seams are caulked with dry rushes; and the whole outside of the vessel is painted over with a kind of gummy juice, which supplies the place of pitch.

The Otaheiteans are a very industrious people, and friendly in their dispositions; but, like all other nations not fully civilized, their passions are extremely violent, and they are very fickle. The manner of singling out a man here for a chosen friend is by taking off a part of your clothing and putting it upon him. Their usual manner of expressing their respect to strangers, or to their superiors, at a first meeting is by uncovering themselves to the middle. They have a custom of saluting those who sneeze, by saying *evarooia-t-eatoua*, "May the good eatoua awaken you," or "May not the evil eatoua lull you asleep!"

Their propensity to theft is very great, insomuch, that M. Bougainville says, "even in Europe itself one cannot see more expert filchers than the people of this country;" and indeed, in all the voyages made by
 Captain

Captain Cook and others, they had abundant experience of this disposition of the natives, which often produced quarrels, and sometimes even fatal effects. In their behaviour they are extremely lascivious, almost beyond credibility. A woman of distinction who visited Sir Joseph Banks used the following ceremony on her first approach to the stranger. After laying down several young plantain leaves, a man brought a large bundle of cloth; which having opened, he spread it piece by piece on the ground, in the space between Sir Joseph and his visitants. There were in all nine pieces: having spread three pieces one upon another, the lady came forward, and, stepping upon them, took up her garments all around her to her waist; she then turned three times round, after which she dropped the veil: when other three pieces were spread, she practised the same ceremony; and so the third time, when the last three pieces were laid out; after which the cloth was again rolled up, and delivered to Sir Joseph as a present from the lady, who with her attending friend came up and saluted him. From the unbridled licentiousness of these people, the French gave this island the name of the *New Cythera*. Nay, to such a degree do they carry their libidinous excesses, that a number of the principal people, it is related, have formed themselves into a society, in which every woman is common to every man. This society is distinguished by the name of *Arreey*, the members of which have meetings from which all others are excluded. At these meetings the passions are excited by a studied course of sensuality, and the coarsest and most brutal pleasures are enjoyed by the whole company. If, however, notwithstanding these excesses, any of the female members of this community should prove with child, unless she can procure some man to adopt the child as his own, not all the strong affections of a mother, if such are not entirely eradicated by a course of life subversive of the feelings as well as the modesty of nature, can save the life of the

the pre-condemned innocent ; but the child as soon as born is smothered, and the mother is left at liberty to renew her former course of execrable prostitution. Should any man be found to co-operate with a woman in saving the life of a child, they are both excluded for ever from the arreoy, and are considered as man and wife. The woman from that time is distinguished by the term *whannow-now*, "the bearer of children ;" which in this part of the world only is considered as a term of reproach ; and so depraved are those people, that being a member of such a society is boasted of as being a privilege, instead of being stigmatized as the foulest crime. The arreoyos enjoy several privileges, and are greatly respected throughout the Society Islands, as well as at Otaheite : nay, they claim a great share of honour from the circumstance of being childless. Tupia, one of the most intelligent natives, when he heard that the King of England had a numerous offspring, declared, that he thought himself much greater, because he belonged to the arreoyos.

Both men and women constantly wash their whole bodies three times a-day in running water, and are remarkably cleanly in their clothes. They are most expert swimmers, being accustomed to the water from their infancy. Captain Cook relates the following remarkable instance of their expertness. On a part of the shore where a tremendously high surf broke, inso-much that no European boat could live in it and the best European swimmer, he was persuaded, would have been drowned, as the shore was covered with pebbles and large stones, yet here were ten or twelve Indians swimming for their amusement. Whenever a surf broke near them, they dived under it, and rose again on the other side. The stern of an old canoe added much to their sport. This they took out before them, and swam with it as far as the outermost breach ; when two or three getting into it, and turning the square end to the breaking wave, were driven in towards the shore with

with incredible rapidity, sometimes almost to the beach; but generally the wave broke over them before they got half way; in which case they dived, and rose to the other side with the canoe in their hands, and, swimming out with it again, were again driven back. This amazing expertness drew the captain's attention for more than half an hour; during which time none of the swimmers attempted to come ashore, but seemed to enjoy the sport in the highest degree. At another time, one of the officers of the quarter-deck intending to drop a bead into a canoe for a little boy of six years of age, it accidentally missed the boat, and fell into the sea; but the child immediately leaped overboard, dived after it, and recovered it. To reward him for this feat, some more beads were dropped to him; which excited a number of men and women to amuse the officers with their amazing feats of agility in the water, and not only fetched up several beads scattered at once, but likewise large nails, which, from their weight, descended quickly to a considerable depth. Some of these people continued a considerable time under water; and the velocity with which they were seen to go down, the water being extremely clear, was very surprising.

The graceful air and firm step with which these people walk are not the least obvious proof of their personal accomplishments. They consider this as a thing so natural, or so necessary to be acquired, that nothing used to excite their laughter sooner, than to see us frequently stumbling upon the roots of trees, or other inequalities of the ground. Their countenances very remarkably express the abundant mildness or good nature which they possess, and are entirely free from that savage keenness which marks nations in a barbarous state. One would, indeed, be apt to fancy that they had been bred up under the severest restrictions to acquire an aspect so settled, and such a command of their passions, as well as steadiness in conduct.

But they are at the same time frank, cheerful, and good-humoured, though sometimes, in the presence of their chiefs, they put on a degree of gravity, and such a serious air, as becomes stiff and awkward, and has an appearance of reserve.

The only defect sullying their character that we know of is their propensity to thieving, to which we found those of all ages and both sexes addicted, and to an uncommon degree. It should, however, be considered, that this exceptionable part of their conduct seemed to exist merely with respect to us; for in their general intercourse with one another, I had reason to be of opinion, that thefts do not happen more frequently (perhaps less so) than in other countries, the dishonest practices of whose worthless individuals are not supposed to authorise any indiscriminate censure on the whole body of the people. Great allowances should be made for the foibles of these poor natives of the Pacific Ocean, whose minds are overpowered with the glare of objects, equally new to them as they were captivating. Stealing, amongst the civilized and enlightened nations of the world, may well be considered as denoting a character deeply stained with moral turpitude, with avarice unrestrained by the known rules of right, and with profligacy producing extreme indigence, and neglecting the means of relieving it. But at the Friendly and other islands which we visited, the thefts so frequently committed by the natives, of what we had brought along with us, may be fairly traced to less culpable motives. They seemed to arise solely from an intense curiosity or desire to possess something which they had not been accustomed to before, and belonging to a sort of people so different from themselves. And perhaps, if it were possible that a set of beings seemingly as superior in our judgment as we are in theirs should appear amongst us, it might be doubted, whether our natural regard to justice would be able to restrain many from

falling into the same error. That I have assigned the true motive for their propensity to this practice, appears from their stealing every thing indiscriminately at first sight, before they could have the least conception of converting their prize to any one useful purpose. But I believe, with us, no person would forfeit his reputation, or expose himself to punishment, without knowing before-hand how to employ the stolen goods. Upon the whole, the pilfering disposition of these islanders, though certainly disagreeable and troublesome to strangers, was the means of affording us some information as to the quickness of their intellects. For their small thefts were committed with much dexterity; and those of greater consequence with a plan or scheme suited to the importance of the objects. An extraordinary instance of the last sort was, in their attempts to carry away one of the Discovery's anchors at mid-day.

These people have a remarkable sagacity in foretelling the weather, particularly the quarter from whence the wind will blow. In their long voyages they steer by the sun in the day, and in the night by the stars; all of which they distinguish by separate names, and know in what part of the heavens they will appear in any of the months during which they are visible in their horizon. They also know the times of their annual appearing and disappearing, with more precision than would easily be believed by an European astronomer. Their time they seem to reckon by moons, thirteen of which make a year. The day they divide into six parts, and the night into an equal number. They judge of the time of the day by the height of the sun, but they cannot ascertain the time of the night by the stars. In numeration, the greatest length they can go is two hundred; that is, when they have counted each of their fingers and toes ten times over. When they take the distance from one place to another, they express it by the time which is required to pass it.

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The marriages of these people are merely secular contracts; but no one has a right to perform the operation of tatowing except the priests; and, this being a custom universally adopted by the natives, it may be supposed that the performing it is a very lucrative employment. The males in general undergo a kind of circumcision, which it is disgraceful not to comply with, and which is likewise the exclusive privilege of the priests to perform. But what most establishes the credit of this order of men is their skill in astronomy and navigation.

A native of Otaheite, named *Omai*, or *Omiab*, was brought over to England by Captain Furneaux, on-board the *Adventure*, in September 1773. After a stay of two years, and having been inoculated for the small-pox, he embarked with Captain Cook, on-board the *Resolution*, on his return home, loaded with a profusion of presents. At parting with his friends here, his tears flowed plentifully, and his whole behaviour bespoke him to be sincerely affected at the separation: but, though he lived in the midst of amusements during his residence in England, his return to his native country was always in his thoughts; and, though he was not impatient to go, he expressed a satisfaction as the time of his return approached.

Such is the account of this people which our limits permit us to give. In the history of mankind it is not without importance; and in the hands of the philosopher, the moralist, or the divine, it may be useful. The subject, because but new, has been much agitated, and is pretty generally known. Such of our readers as make men and manners their peculiar study, will be anxious for further information; we must refer them, however, to those authors who have written particularly and copiously on the subject. Cook and other voyagers of eminence will at least command attention. We may just remark, that there must surely be something extremely fascinating in the persons, manners, or

customs, of the inhabitants, or in the soil and appearance of the country, that could tempt the greater part of a ship's crew to resist authority, and forcibly to return to Otaheite; yet such we know was the case: and the sufferings of the commander, and those who refused to join in this vile conspiracy, and who were therefore exposed in an open boat, were indeed shocking.

The Society Islands, so called in honour of the Royal Society, were discovered by Captain Cook in the year 1769: the principal are, Huaheine, Ulitea, Otaha, and Bolabola. Huaheine is about thirty-one leagues to the north-west of Otaheite, and its productions are the same. The inhabitants seem to be larger made and more stout than those of Otaheite. Sir Joseph Banks measured one of the men, and found him to be six feet three inches and a half high; yet they are so indolent, that he could not persuade one of them to go up the hills with him; for they said, if they should attempt it, the fatigue would kill them.

The Friendly Islands were so named by Captain Cook, in the year 1773, on account of the friendship which appeared to subsist among the inhabitants, and from their courteous behaviour to strangers. The natives of these islands seldom exceed the common stature; but are very strong and well made, especially as to their limbs. They are generally broad about the shoulders; and though the muscular disposition of the men, which seems a consequence of much action, rather conveys the appearance of strength than of beauty, there are several to be seen who are really handsome. The women are not so much distinguished from the men by their features as by their general form, which is for the most part destitute of that strong fleshy firmness that appears in the latter; though the features of some are so delicate, as not only to be a true index of their sex, but to lay claim to a considerable share of beauty and expression, for the bodies and limbs of most
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of the females are well proportioned, and some absolutely perfect models of a beautiful figure. But the most remarkable distinction in the women is the uncommon smallness and delicacy of their fingers, which may be put in competition with the finest in Europe. The general colour is a cast deeper than the copper brown; but several of the men and women have a true olive complexion; and some of the last are even a great deal fairer. Their countenances very remarkably express the abundant mildness or good-nature which they possess; and are entirely free from that savage keenness which marks nations in a barbarous state. They are frank, cheerful, and good-natured.

Their hair is in general straight, thick, and strong, though a few have it bushy or frizzled. The natural colour is black; but the greatest part of the men, and some of the women, have it stained of a brown or purple colour, and a few of an orange cast. They wear it variously cut. Some have it cut off on one side of the head only; others have it entirely cut off except a single lock; the women in general wear it short. The men have their beards cut short; and both men and women strip the hair from the arm-pits. The men are stained from about the middle of the belly to about half way down the thighs with a deep blue colour. The women have only a few small lines or spots thus imprinted on the inside of their hands. Their kings, as a mark of distinction, are exempted from this custom. The men are all circumcised, or rather supercised, as the operation consists in cutting off only a small piece of the foreskin at the upper part; which by that means is rendered incapable ever after of covering the glans. This is all they aim at, as they say the operation is practised from a notion of cleanliness.

The dress of both men and women is the same; and consists of a piece of cloth or matting (but mostly the former) about two yards wide and two and a half long;

long; at least so long as to go once and a half round the waist, to which it is confined by a girdle or cord. The ornaments worn by both sexes are necklaces, made of the fruit of the pandanus, and various sweet-smelling flowers, which go under the general name of *ka-bulla*. Others are composed of small shells, the wing and leg bones of birds, shark's teeth, and other things; all which hang loose upon the breast; rings of tortoise shells on the fingers; and a number of these joined together as bracelets on the wrists. The lobes of the ears (though most frequently only one) are sometimes perforated with two holes, in which they wear cylindrical bits of ivory about three inches long.

At New Zealand the inhabitants are stout and robust and equal in stature to the largest Europeans. Their colour in general is brown, but in few deeper than that of a Spaniard who has been exposed to the sun, and in many not so deep; and both sexes have good features. Their dress is very uncouth, and they mark their bodies in a manner similar to those of Otaheite, which is called tatowing. Their principal weapons are lances, darts, and a kind of battle-axes; and they have generally shewn themselves very hostile to the Europeans who have visited them. As to their religious principles, they believe that the souls of such as are killed in battle, and their flesh afterwards eaten by the enemy, are doomed to perpetual fire; while the souls of those who die a natural death, or whose bodies are preserved from such ignominious treatment, ascend to the habitations of the gods. The common method of disposing of their dead is by interment in the earth; but, if they have more of their slaughtered enemies than they can eat, they throw them into the sea. They have no such things as morais, or other places of public worship; nor do they ever assemble together with this view. Captain Cook, during his residence here, had the most convincing evidences of their being cannibals, and accustomed to devour the
bodies

bodies of their slain enemies. Notwithstanding those barbarous practices, however, they seemed to enjoy a state of uninterrupted health. In all their visits made to their towns, none was ever perceived who had the least bodily complaint, not even the slightest eruption on the skin. This extraordinary degree of health was likewise manifested by the ease with which their wounds were healed without the smallest application, as well as by the number of old men with which the island abounded. Many of these, by the loss of their hair and teeth, seemed to be extremely old, but none of them were decrepid; and, though inferior in strength to the young men, they came not behind them in the least with regard to cheerfulness and vivacity. The universal and only drink of the New Zealanders is water.

At Nootka-Sound, the same horrid and unnatural practice of devouring their enemies seems to exist, as at New Zealand, and the newly-discovered islands in the south seas. Captain Cook asserts, that among other articles which the inhabitants of New Zealand offered for sale to his ship's crew, they brought human skulls, and hands with part of the flesh still remaining on them, which they acknowledged they had been feeding on, and had evident marks of having been scorched by fire; and yet most voyagers agree in characterizing these savages as "a very inoffensive race of people."

The natives of the Nootka nation are, in general, robust and well-proportioned:---their faces are large and full, their cheeks high and prominent, with small black eyes:---their noses are broad and flat, their lips thick, and they have generally very fine teeth, and of the most brilliant whiteness.

The manner in which the children of Nootka are treated, when young, is not more extraordinary from its strange and total inutility, than from its agreement with the customs of the Chinese and Tartars, to whom
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this practice gives these people a considerable resemblance. The head of the infant is bound by the mother with a kind of fillet of several folds, as low down as the eyes, in order to give it a certain form, which, at this tender age, it is capable of receiving. It might be supposed, that such a tight-drawn ligature must cause considerable pain to the child; but our late voyagers never observed that any of the infants, in such a state of preparation for sugar-loaf heads, suffered any visible pain or inconvenience.

Though the custom of compressing the head in this manner gives them an unpleasant appearance, by drawing up the eye-brows, and sometimes producing the disagreeable effect of squinting, as well as of flattening the nose and distending the nostrils, they are by no means an ill-looking race of people. They have also the custom, which is known to prevail in so many Indian nations, of plucking out the beard by the roots, on its first appearance; and, as it continues to sprout, to keep it down by the same practice. It is one of the domestic employments assigned to their wives, to watch this appearance of manhood, and to eradicate the hairs as they come forth; which they do in a very dexterous manner with their fingers, and without giving the least pain in the operation.---Some of them, however, when they advance in years and become infirm, suffer their beards to grow without interruption. But, notwithstanding they have so great an aversion to the hair of their chin, that of the head is an object of their attentive vanity: it is strong, black, and glossy, grows to a considerable length, and is either tied in a kind of knot on the top of their heads, or suffered to hang down their backs in flowing negligence.

In their exterior form they have not the symmetry or elegance which is found in many other Indian nations.---Their limbs, though stout and athletic, are crooked and ill-shaped; their skin, when cleansed of filth and ochre, is white; and some of the women,





A Male Savage of Terra del Fuego

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when in a state of cleanliness, not only possess the fair complexion of Europe, but features that would attract notice for their delicacy and beauty in those parts of the world where the qualities of the human form are best understood. But these examples of beauty are by no means numerous among the women of Nootka, who are calculated rather to disgust than to charm an European beholder. Their hair, like that of the men, is black; their eyes are of the same colour; and, in exterior appearance, they are not to be immediately distinguished from the men. In their characters they are reserved and chaste; and examples of loose and immodest conduct are very rare among them.

A principal object in the voyages of Captain Cook, was to explore the regions of Terra del Fuego, from the Straits of Magellan quite round Cape Horn, to Le Maire's Straits. As the world had hitherto received but very imperfect accounts of this coast, he thought a survey of it would be of more advantage than any thing he could expect to meet with in a higher latitude. The coast of Terra del Fuego appeared desolate beyond any thing he had hitherto experienced. It seems to be entirely composed of rocky mountains, without the least appearance of vegetation. These mountains terminate in horrid precipices, the craggy submits of which spire up to a vast height; so that scarcely any thing in nature can have a more barren and savage aspect than the whole of the country.

In one of the small islands, which, from their being discovered on new year's day, were called New Year's Isles, a remarkable harmony was observed among the animals of different species with which these desolate regions abound. The sea-lions occupy the greatest part of the sea-coast; the bears occupy the island; the shags are posted in the highest cliffs; the penguins in such places as have the best access to and from the sea; and the other birds choose more retired places. Occasionally, however, all these animals were seen to

mix together like domestic cattle and poultry in a farm yard, without one attempting to hurt the other in the least. Even the eagles and vultures were frequently observed sitting together on the hills among the shags, while none of the latter, either old or young, appeared to be disturbed at their presence. It is probable, therefore, that these birds of prey subsist by feeding on the carcases of the animals which die naturally or by various accidents, and which must be very numerous from the immense quantity existing on the island. The excessive cold and mutability of weather which Captain Cook experienced in these southern regions, had nearly proved fatal to some of the gentlemen who sailed along with him. Dr. Solander, Mr. Banks, Mr. Monkhouse the surgeon, and Mr. Green the astronomer, with their attendants and servants, set out on a botanical expedition while the ship lay at anchor in the bay of Good Success. It was the middle of summer, and the morning on which they set out was as mild and warm as it usually is in the month of May in England: but, having ascended a mountain for the purpose of botanizing, they were surprised by such storms of snow and hail, that they could not get back that night. Dr. Solander, who warned them of the danger that people when about to perish with cold were seized with a violent inclination to sleep, was the first who seemed likely to fall a victim to it; and it was not in the power of his companions to keep him from sitting down for that purpose. He was awaked in a few minutes; but during this short interval his feet had become so much diminished by the contraction of the vessels, that his shoes fell off from them when he was again made to rise. Even these dreary regions, however, are not without inhabitants, whom our voyagers justly concluded to be the lowest of the human species. Indeed so great is the deformity and native ugliness of this race of beings, that they appear to be only one remove from the ourang-outang; a circumstance

stance which is no doubt induced by the uncommon severity and mutability of the climate, and the coarseness of their food. They eat indiscriminately all kinds of carrion, the sea-lion, seals, and raw fish. Their only weapon is a kind of spear made of hard wood, which is wrought with infinite labour by means of sharp bones and shells. With these they kill the vulture, the eagle, the bear, and a variety of amphibious creatures for food, and clothe themselves with the skins. Though ugly and deformed, the men appear to possess a great deal of strength and agility. They wear a singular ornament over their privities made of wood; and they are fond of decorating themselves with bones and shells, either hung round their necks, or suspended from their ears, which are enormously large and ugly. The women appear more deformed and disgusting than the men; yet have they the pride of decorating their ears with several rows of shells, and sometimes their wrists and necks. They carry their children at their backs, secured by the skin of the bear, or the sea-lion; and their breasts are of so enormous a size as to admit of being thrown over the shoulder to give suck, which is their universal practice. Their colour is a very dark olive, with large black eyes, prominent cheek-bones, and broad flat nose. And considering the little convenience they have, it is wonderful how they can resist the severity of the climate, for they dwell in miserable hovels, which admit both the wind and snow or rain; and they have not any idea or utensil for dressing their food. Nevertheless, these miserable creatures seemed to have no wish to possess more than they enjoyed; and they were absolutely indifferent about every thing that was offered them except large beads which they would take as ornaments. Hence Dr. Hawkesworth, who wrote the account of the voyage, concludes that these people may be on a level with ourselves with respect to the real happiness they enjoy.

The next islanders in point of deformity in the South Seas, are the natives of Mallicollo: they are of a very dark colour, and diminutive size; with long heads, flat faces, and monkey countenances; their hair, in general, black or brown, short and curly, but not quite so soft and woolly as that of a negro. Their beards are very strong, crisp, and bushy, and generally black and short. But what serves greatly to increase their natural deformity is a custom which they have of wearing a belt, or cord, round their waist: this rope is as thick as a man's finger; and is tied so tight round their belly, that it would be fatal to a person unaccustomed from infancy to such an unnatural ligature; for it cuts such a deep notch across the navel, that the belly seems in a manner divided, one part being above and the other below the rope. The men go quite naked, except a piece of cloth or leaf used as a wrapper. Most other nations invent some kind of covering from motives of shame; but here a roll of cloth, continually fastened to the belt, rather displays than conceals, and is the opposite of modesty. Besides having the flat broad nose and projecting cheek-bones of a negro, and a very short forehead, many increase their natural ugliness by painting their faces and breasts with a black colour. They wear bracelets of white and black shells, which press the upper arm so closely, that they seem to have been put on when the wearer was very young: this tends, as well as the belt, to reduce the Mallicollese to that slender shape which characterises them. The depression of their foreheads is supposed to be artificial, as the heads of infants may be squeezed into any kind of form.

The first natives that were seen carried clubs in their hands, and waded into the water, carrying green boughs, the universal sign of peace. The savages on some parts of New Guinea and Papua, seemed to correspond, in many particulars, with what has been observed of the Mallicollese. They differ likewise very widely

widely from the other inhabitants of the South Sea, by keeping their bodies entirely free of punctures. Whatever these people saw, they coveted; but they never repined at a refusal. The looking-glasses which were given them were highly esteemed, and they took great pleasure in viewing themselves; so that these ugly people seemed to have more conceit than the beautiful nations at Otaheite and the Society Islands.

Very few women were seen, but those few were no less ugly than the men: they were of small stature, and their heads, faces, and shoulders, were painted red. Those who were grown up, and probably married, had short pieces of a kind of cloth or rather matting, round their waists, reaching nearly to their knees; the rest had only a string round their middle, with a wisp of straw; and the younger ones, from infancy to the age of ten years, went stark naked, like the boys of the same age. The women were not observed to have any finery in their ears or round their necks and arms, it being fashionable in this island for the men only to adorn themselves; and wherever this custom prevails, the other sex is commonly oppressed, despised, and in a state of servility. Here the women were seen with bundles on their backs, which contained their children; the men seemed to have no kind of regard for them. None of them came off to the ship, and they generally kept at a distance when any party landed from the boat. They perforate the cartilage of the nose between the nostrils; and thrust therein a piece of white stone about an inch and a half long, which is bent like the curvature of a bow.

Their weapons are bows and arrows, and a club about two feet and a half in length, made of the cauarina wood, commonly knobbed at one end, and well polished. This weapon they hang on their right shoulder, from a thick rope made of a kind of grass. It appeared to be preserved for close engagements, after having emptied the quiver. On the left wrist they wear

wear a circular wooden plate, neatly covered, and joined with straw, about five inches in diameter, upon which they break the violence of the recoiling bow-string, and preserve their arm unhurt. Their arrows are made of a sort of reed; and are sometimes armed with a long sharp point made of red-wood, and sometimes with a very hard point made of bone; and these points are all covered with a substance which was supposed to be poisoned. Indeed the people themselves confirmed these suppositions, by making signs to the gentlemen of the ship not to touch the points, and giving them to understand that if they were pricked by them they would die: they are very careful of them themselves, and keep them always wrapt up in a quiver. Some of these arrows were armed with two or three points each, with small prickles on the edge to prevent the arrow from being drawn out of the wound. Repeated and effectual trials of the virulence of this poison were made upon dogs, but they gave no signs of being hurt by it.

After some slight indications of a hostile intention on the part of the natives, which they had shewn in their canoes whilst about the ship, Captain Cook, with a party of marines in two boats, landed in the face of four hundred or five hundred Indians who were assembled on the shore. Though they were all armed with bows and arrows, clubs and spears, they made not the least opposition; on the contrary, seeing the captain advance alone, unarmed, with only a green branch in his hand, one of them, who seemed to be a chief, giving his bow and arrows to another, met him in the water, bearing also a green branch. When they met, the branches were exchanged; and the chief led the captain by the hand up to the crowd, to whom he immediately distributed presents; in the mean time the marines were landed, and drawn up upon the beach. The captain then made signs that he wanted wood, and they by signs gave him permission to cut down the
trees

trees. After sending on-board what wood had been cut, the party all embarked, and the natives dispersed. When the ship was about to leave this island, Captain Cook gives the following relation: "When the natives saw us under sail, they came off in canoes, making exchanges with more confidence than before, and giving such extraordinary proofs of their honesty as surprised us. As the ship at first had fresh way through the water, several of the canoes dropped astern after they had received goods, and before they had time to deliver theirs in return: instead of taking advantage of this, as our friends in the Society Islands would have done, they used their utmost efforts to get up with us, and deliver what they had already been paid for. One man in particular followed us a considerable time, and did not reach us till it was calm, and the thing was forgotten. As soon as he came along-side, he held up the article, which several on-board were ready to buy: but he refused to part with it till he saw the person to whom he had before sold it; and to him he gave it. The person, not knowing the man again, offered him something in return, which he refused; and, shewing him what had been given before, at length made him sensible of the nice sense of honour which had actuated this Indian."

At the extremity of Chili, and on the confines of Terra Magellanica, a gigantic race of men have been discovered. Frezier informs us, on the authority of several Spaniards, who pretended to be eye-witnesses, that these men are nine or ten feet high. These giants, he remarks, are called Patagonians, and inhabit the eastern part of the desert coast of the South Seas. The story of the Patagonians was afterwards regarded as perfectly fabulous; because the Indians discovered along the Straits of Magellan surpassed not the ordinary stature of men; but Commodore Byron, who made this voyage in the year 1764, confirms the account published by Frezier. As a vast deal has been
said

said respecting the stature of the Patagonians, by people of different nations, I shall insert the following letter from Mr. Charles Clarke, who was on-board Byron's ship in 1764, and gave this account to Dr. Matty.

"We had not got above ten or twelve leagues into the Straits of Magellan from the Atlantic Ocean, before we saw several people, some on horseback, some on foot, on the north shore, and with the help of our glassess could perceive them beckoning to us to come on shore, and at the same time observed to each other, that they seemed to be of an extraordinary size: however, we continued to stand on, and should have passed without taking the least farther notice of them, could we have proceeded; but our breeze dying away, and the tide making against us, we were obliged to anchor; when the commodore ordered his boat of twelve oars, and another of six, to be hoisted out, manned and armed. In the first went the commodore, in the other Mr. Cummins, our first lieutenant, and myself. At our first leaving the ship, their numbers did not exceed forty; but, as we approached the shore, we perceived them pouring down from all quarters, some galloping, others running, always making use of the utmost expedition. They collected themselves into a body just at the place we steered off for. When we had got within twelve or fourteen yards of the beach, we found it a disagreeable flat shore, with very large stones, which we apprehended would injure the boats; so we looked at two or three different places to find the most convenient for landing. They supposed we deferred coming on shore through apprehensions of danger from them; upon which they all threw open the skins which were over their shoulders, which was the only clothing they had, and consequently the only thing they could secrete any kind of arms with, and many of them lay down close to the water's edge.--- The commodore made a motion for them to go a little

little way from the water, that we might have room to land, which they immediately complied with, and withdrew thirty or forty yards; we then landed, and formed each man with his musket, in case any violence should be offered. As soon as we were formed, the commodore went from us to them, then at about twenty yards distance: they seemed vastly happy at his going among them, immediately gathered round him, and made a rude kind of noise, which I believe was their method of singing, as their countenances bespoke it a species of jollity. The commodore then made a motion to them to sit down, which they did in a circle, with him in the middle, when Mr. Byron took some beads and ribbons, which he had brought for that purpose, and tied about the womens necks, with which they seemed infinitely pleased. We were struck with the greatest astonishment at the sight of people of such a gigantic stature, notwithstanding our previous notice with glasses from the ship. Their body was increased, by the time we got in there, to the number of five hundred, men, women, and children. The men and women both rode in the same manner; the women had a kind of belt to close their skins round the waist, which the men had not, as theirs were only flung over their shoulders, and tied with two little slips, cut from the skin, round the neck. At the time of the commodore's motion for them to retire farther up the beach, they all dismounted, and turned their horses loose, which were gentle and stood very quietly. The commodore having disposed of all his presents, and satisfied his curiosity, thought proper to retire; but they were vastly anxious to have him go up into the country to eat with them. That they wanted him to go with them to eat, we could very well understand by their motion, but their language was wholly unintelligible to us.---The commodore returned the compliment, by inviting them on-board the ship; but they would not favour him with their

company; so we embarked, and returned to the ship. We were with them near two hours at noon-day, within a very few yards, though none had the honour of shaking hands but Mr. Byron and Mr. Cummins; however, we were near enough and long enough with them, to convince our senses, so far as not to be cavilled out of the very existence of those senses at that time, which some of our countrymen and friends would absolutely attempt to do. They are of a copper-colour, with long black hair, and some of them are certainly nine feet, if they do not exceed it. The commodore, who is very near six feet, could but just reach the top of one of their heads, which he attempted on tiptoes; and there were several taller than him, on whom the experiment was tried. They are prodigious stout, and as well and as proportionably made as ever I saw people in my life. That they have some kind of arms among them, is, I think, indisputable, from their taking methods to convince us they had none at that time about them. The women, I think, bear much the same proportion to the men as our Europeans do; there was hardly a man there less than eight feet, most of them considerably more. The women, I believe, run from seven and an half to eight feet.---Their horses are stout and bony, but not remarkably tall; they are, in my opinion, from fifteen to fifteen hands and an half. They had a great number of dogs, about the size of a middling pointer, with a fox nose. They continued on the beach till we got under way, which was two hours after we got on-board. I believe they had some expectations of our returning again; but, as soon as they saw us getting off, they betook themselves to the country."

That the whole of this account is true, I cannot assert; but that the writer has been misled in some respects, and misinformed with regard to some of his facts, is at least probable: for Captain Wallis, who went out to the Straits of Magellan after Byron's return,

turn, gives a different turn to many of the observations; and, with respect to the stature of the people, he differs very materially. I shall give the following epitome of his remarks on what occurred to him---He had three ships with him, which entered the straits on the 16th of December 1766, and came to an anchor in a bay south of Cape Virgin Mary, where they were immediately accosted by a whole troop of Patagonians, who made signs for them to come on shore. The captain, having made previous dispositions for the security of his men in case of an attack, manned all the boats belonging to the three ships, and with a party of marines landed on the beach where those giants had assembled. The commanders of the three ships, and most of their officers, were of this party. On their leaping ashore, the Indians seemed to welcome them; and, being by signs desired to retreat, they all fell back, and made room for the marines to form. When they were drawn up, Captain Wallis advanced, and by signs directed the Indians to seat themselves in a semicircle, which they readily understood and obeyed. He then distributed among them knives, scissars, buttons, beads, combs, and particularly ribbons, with which he complimented the women, who received them with a mixture of pleasure and respect. He then gave them to understand that he had still more valuable articles to bestow, and shewed them axes and bill-hooks; but, at the same time, pointed to some gaunicoes and ostriches, intimating that he expected some of those in return: but they either did not, or would not, understand him; so that no traffic took place.

The whole company that were assembled on this occasion had each a horse with a saddle and bridle. The saddle had a sort of stirrups, and the bridle was made of thongs of leather very well put together, for the purpose of guiding the horses. The women, as well as the men, rode astride. The men, in general, wore each a wooden spur; but one of them had a large pair

pair of Spanish spurs, brass stirrups, and a Spanish scimitar. Their horses were nimble and spirited, but small in proportion to their riders, seemingly not above fourteen hands high. Their dogs were of the Spanish breed. The captain having purposely provided himself with measuring rods, found that the tallest man among them measured only six feet seven inches high; several were within an inch or two as tall; but the ordinary size was from five feet ten inches to six feet. It is a pity that none of our voyagers thought of measuring the whole size of one of those gigantic men. They tell us, indeed, that they are well made, that they are proportionally large, and that they are robust and bony; but they give us no criterion to judge of their bulk, nor one instance of their extraordinary strength. As they are represented not only peaceable, but remarkably tractable, some trials might have been made of the weight they could have lifted, and how much they could exceed in that respect the strongest man in the ships. This, in a great measure, would have determined the point, which is yet left doubtful by the varying relations that are given by the different voyagers who have seen these people, no two of them agreeing in the same description. All agree, however, that their hair is black, and harsh like bristles; that they are of a dark copper-colour, and that their features are rather handsome than ugly; that they clothe themselves decently with the skins of gaunicoes; that they paint themselves variously; and there is reason to suspect, that by that variety they distinguish their tribes. Those seen by Commodore Byron were painted round both eyes, no two of them alike; those seen by Captain Wallis had only a red circle round the left eye; and those seen by Bougainville had no circle round the eyes, but had their cheeks painted red. This may account for the different reports of voyagers concerning their stature: it is not impossible, nay, it is very probable, that they may vary in this particular, according
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to their tribes; as is seen in the Highlands of Scotland, where one clan of the Campbells is remarkably tall, and another of the Frasers remarkably short. Were it not for some such natural discrimination, there could not be so wide a difference in the descriptions of gentlemen, who, having no ends to serve either in falsifying one another's reports, or in imposing upon the public, cannot be supposed to mistake wilfully.

It is remarkable that the Patagonians had none of the characters of a ferocious people; there was no offensive weapon among them, except the scimitar already mentioned. The men, indeed, had a kind of sling which they use in hunting, consisting of two round stones of about a pound weight each, connected together by a thong. These stones were fastened to the extremities of the thong; and, when they threw them, they held one stone in the hand, and swung the other about the head. "They are so expert in the management of this double-headed shot, that they will hit a mark not bigger than a shilling with both these stones at the distance of fifteen yards; but their method of availing themselves of their dexterity against the gaucho and ostrich is, to sling the stones so as to entangle their legs, by which means they are retarded in their flight, and easily overtaken.

These people certainly dress differently as well as paint differently; for the dress described by Bougainville is very unlike the dress of those seen by the English voyagers. Captain Wallis invited some of them on-board his ship: but, among all the wonders that were shewn them, none seemed to attract their notice so much as the looking-glasses: they looked in the glasses and at each other: they laughed and gazed, and gazed again and laughed; in short, there was no end to their merriment when in possession of this article of curiosity. They ate whatever was given them, but would drink nothing but water. In this they differ from all the tribes of Indians in North America, who
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are immoderately fond of spirituous liquors. They admired the European sheep, hogs, and poultry; but did not seem over desirous of any thing they saw except clothes. When the marines were exercised to entertain them, they appeared disconcerted; an old man among them made signs, by striking his breast, and tumbling down and lying as if he had been dead upon deck, that he knew the effect of their guns; and none of them seemed easy till their firing was over. When the captain had satisfied his own curiosity, and, as he imagined, theirs, he gave them to understand, that he was going to sail, and that they must depart; which they were very unwilling to do. However, having given each of them a canvas bag, with some needles ready threaded, a knife, a pair of scissors, a few beads, a comb, and a looking-glass, he dismissed them, with great reluctance on their part, particularly on that of the old man's, who by very significant signs expressed his desire to stay till sunset.

A numerous race of savages occupy Canada, and the adjacent territories, as far as the Assiniboils. They are large, strong, well made, and all of them have black hair, black eyes, very white teeth, a swarthy colour, little beard, and hardly any hair on their bodies. They are indefatigable in travelling, and extremely nimble in the chase. With equal ease they can support hunger, and the greatest excess in eating. They are hardy, bold, grave, and moderate: in a word, they have a strong resemblance, both in their external appearance, and in their manners and dispositions, to the oriental Tartars. They also live under the same latitude; which is a farther proof of the influence of climate upon the figure and colour of the human species.

The savages of Florida, of the Mississippi, and of the more southerly regions, though not absolutely brown, are more tawny than the Canadians. The oil and paint with which they rub their bodies render
their

their colour unnaturally olive. Coreal tells us, that the women of Florida are tall, strong, and, like the men, of an olive-colour; that they paint their arms, limbs, and body, with several colours, which remain for ever, because they are engrained by means of puncturing; that the olive-colour of both sexes proceeds not so much from the heat of the climate as from the oil with which they varnish their skin. He adds, that the women are extremely active; that, with an infant in their arms, they swim across large rivers; and that, with equal agility, they climb the highest trees. All these qualities they possess in common with the Canadians and other savages of America. The author of the Natural and Moral History of the Antilles remarks, that the Apalachians, a people bordering on Florida, are tall, well-shaped, and of an olive-colour; and that they have all long black hair. He adds, that the Caribbees, who inhabit the Antilles, have sprung from the savages of Florida; and that the time of their migration has been handed down by tradition.

The natives of the Lucai Islands are less tawny than those of St. Domingo and Cuba. But so few of either now remain, that the relations of the first voyagers to these countries can derive no support from them. These people it has been alledged, were very numerous; that they were governed by chiefs, called Caciques; and that they had priests and physicians. But all this is problematical, and, besides, has no connection with our history. The Caribbees, in general, says Father du Tertre, are tall, and have a pleasant aspect; they are strong, robust, active, and healthy; some of them have flat visages and depressed noses. These features, however, are not natural to them, but artificially induced by their parents soon after birth. This capricious practice of altering the natural figure of the head is very general among savage nations. Most of the Caribbees have small black eyes, white teeth, and long, smooth, black hair. Their colour is tawny or
olive;

olive; and this colour is natural to them, and not the effect of painting, as some authors have maintained; for the colour of such of their children as have been trained up among Europeans, and not allowed the use of paint, was precisely the same with that of their parents. All these savages, though they never think, have a pensive melancholy aspect. Though cruel to their enemies, they are naturally mild and compassionate. They marry indifferently, either their own mothers or strangers. Their cousins-german belong to them by law; and several of them have been known to possess, at the same time, two sisters, or the mother and the daughter, and even their own daughter. Those who have several wives visit them alternately for a month or a stated number of days, which extinguishes jealousy among the women. They easily pardon adultery in their wives; but they never forgive him who debauches them. They feed upon crabs, turtles, lizards, serpents, and fishes, which they season with pimento, and the flour of mainioc. Being extremely indolent, and accustomed to the most unbounded independence, they detest servitude, and never can be trained to labour like the Negroes. To preserve their liberty, they exert every effort; and, when they find it impracticable, they, rather than work, choose to die of hunger, or of chagrin. The Arrouaguas, who are milder than the Caribbees, are sometimes employed; but it is only in fishing or hunting, exercises of which they are naturally fond, and to which they have been accustomed in their own country. If these savages are to be retained as slaves, they must be treated with as much gentleness as domestic servants, otherwise they will desert, or perish with melancholy: The Brazilian slaves have nearly the same disposition, though they seem to be less indolent and melancholy than any other American savages. However, when treated with gentleness, they may be trained to any
operation

operation, except that of cultivating the ground, which they consider as the characteristic badge of slavery.

Savage women are always smaller than the men. The Caribbee females are fat, and tolerably handsome. Their hair and eyes are black; their visage is round, their mouth small, their teeth white; their hair is more open, gay, and lively, than that of the men; and they are modest and reserved. They daub themselves with paint; but they do not use the black strokes upon the face and other parts of the body, as is customary with the men. They wear only a small apron, made of cotton, studded with beads, about eight or ten inches broad by five or six long. This stuff they purchase of the Europeans; and, besides the apron, they use collars of the same cloth round their necks, which hang down upon their bosoms. They likewise wear bracelets of this stuff on their wrists and arms, and ear-rings made of a blue stone, or of strings of beads. The last ornament peculiar to the women is a kind of buskin of cotton studded with beads, which extends from the ankle to the calf of the leg. As soon as the girls arrive at the age of puberty, they are furnished with an apron and buskins, the latter of which are made so tight, that they cannot be removed; and, as they prevent the under part of the leg from thickening, the upper parts grow larger and stronger than they would naturally do.

The natives of the Isthmus of America are, as Wafer remarks, generally of a good stature and shape. They have elegant limbs, a full chest, and are extremely active and fleet in the chase. The women are little and squat; and though, when young, they are jolly, and have brilliant eyes; yet they possess not equal vivacity with the men. Both men and women have round faces, short flat noses, large eyes, mostly of a grey colour, and full of fire, high foreheads, white teeth, thin lips, mouths of a middle size, and, in general, a very regular set of features. They all have

long, black, strait, hair; and the men would have beards if they did not pull out the hairs. Their colour is tawny; and their eye-brows are as black as jet.

But these are not the only natives of this isthmus; for we find among them a species of Albinos, or white negroes, whose colour resembles not that of the Europeans, but their whiteness is similar to that of milk, or to the hairs of a white horse. Their skin is covered with a kind of short white down, which is not so thick upon the cheeks and forehead as to conceal the skin. The *glans penis* is perfectly black, like other negroes, and is the only black mark about them. Their eye-brows are perfectly white, as well as their hair, which is seven or eight inches long, and half crisped. These Indians are not so tall as the others, and the women are still smaller than the men; and, what is singular, their eye-lids are oblong, or rather in the form of a crescent, with the points turned down. Their eyes are red, and so weak, that they can hardly see any object during the day; they cannot suffer the rays of the sun, and have no distinct vision but from the light of the moon. Their complexion is extremely delicate; they have an abhorrence at all hard labour; they sleep during the day, and never go abroad but in the night. When the moon shines, they hunt down their prey with a light tomahawk, and run through the deepest shades of the forest with as much freedom and nimbleness as other men do in the clearest day. Upon the whole, these men are neither so robust nor vigorous as the other Indians: they form a peculiar and distinct race. But it sometimes happens, that a husband and wife, though both of a copper colour, produce one of these white children. Wafer, from whom we have transcribed these facts, tells us, that he has seen a child of this kind before it was a year old.

Not long ago we had an account from Surinam of a negro of Angola whose skin and hair were perfectly white, though both his father and mother had very dark





J. M. delin.

J. G. sculp.

The White Negro, female.

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dark complexions. The eyes of this Albino, or white negro, had a constant vibratory motion, and were incapable of distinguishing objects with exactness except in the dark. In the *Journal de Physique* of M. Rofier, for May 1777, M. Dicquemare has published an account of a white negro girl who was born at Dominica in 1759 of black parents. She has all the features of the negroes, especially those of Lower Guinea; and her hair, eye-brows, and eye-lashes, are the same in every respect, except the colour. Her hair, though a kind of very short wool, is fair; and her eye-brows as well as eye-lashes are of a yellowish pale colour. The colour of her skin is a dead white; her cheeks, lips, nose, and other sanguine parts, have a slight taint of red, which becomes stronger when she is affected with liveliness or fear. Her eyes are long; the pupils approach, or sometimes recede from, each other, with a continual and involuntary motion; she is weak but not short sighted. Light is disagreeable to her, and towards night she sees neither better nor farther than others. She has a timid air, a soft voice, and the smell of green leeks; but her skin is not soft like that of the negroes. Her parents have had several black children; but it is said, that an older one, who was born white, gradually became blacker as he grew up, and at last assumed the colour of the Cabres.

In Saussure's *Voyages dans les Alpes*, is the following account of two white negro boys, at Chamouni, who were called Albinos. "The elder, who was at the end of the year 1785 about twenty or one-and-twenty years of age, had a dull look, with lips somewhat thick, but nothing else in his features to distinguish him from other people. The other, who is two years younger, is rather a more agreeable figure: he is gay and sprightly, and seems not to want wit. But their eyes are not blue; the iris is of a very distinct rose-colour: the pupil too, when viewed in the light, seems decidedly red; which seems to demonstrate, that

the interior membranes are deprived of the uvea, and of that black mucous matter that should line them. Their hair, their eye-brows, and eye-lashes, the down upon their skin, were all, in their infancy, of the most perfect milk-white colour, and very fine; but their hair is now of a reddish cast, and has grown pretty strong. Their sight too is somewhat strengthened; though they exaggerate to strangers their aversion for the light, and half shut the eye-lids to give themselves a more extraordinary appearance. But those who, like me, have seen them in their infancy, before they were tutored to this deceit, and when too few people came to Chamouni to make this affectation profitable to them, can attest that then they were not very much offended with the light of day. At that time, they were so little desirous of exciting the curiosity of strangers, that they hid themselves to avoid such; and it was necessary to do a sort of violence to them before they could be prevailed on to allow themselves to be inspected. It is also well known at Chamouni, that when they were of a proper age they were unable to tend the cattle like the other children at the same age; and that one of their uncles maintained them out of charity, at a time of life when others were capable of gaining a subsistence by their labour.

“ I am therefore of opinion, that we may consider these two lads as true Albinos: for, if they have not the thick lips and flat noses of the white negroes, it is because they are Albinos of Europe, not of Africa. This infirmity affects the eyes, the complexion, and the colour of the hair; it even diminishes the strength, but does not alter the conformation of the features. Besides, there are certainly in this malady various degrees: some may have less strength, and be less able to endure the light: but these circumstances in those of Chamouni are marked with characters sufficiently strong to entitle them to the unhappy advantage of being

being classed with that variety of the human species denominated Albinos.

“ When nature presents the same appearance often, and with circumstances varied, we may at last discover some general law, or some relation which that appearance has with known causes: but, when a fact is so singular and so rare, it gives but little scope to conjectures: and it is very difficult to verify those by which we attempt to explain it. I at first imagined that this disease might be referred to a particular sort of organic debility; that a relaxation of the lymphatic vessels within the eye might suffer the globules of the blood to enter too abundantly into the iris, the uvea, and even the retina, which might occasion the redness of the iris and of the pupil. The same debility seemed also to account for the intolerance of the light, and for the whiteness of the hair. But a learned physiologist, M. Blumenbach, professor in the university at Göttingen, who has made many profound observations on the organs of sight, and has considered with great attention the Albinos of Chamouni, attributes their infirmity to a different cause.

“ The study of comparative anatomy has furnished him with frequent opportunities of observing this phenomenon; he has found it in brutes, in white dogs, and in owls; he says, it is generally to be seen in the warm-blooded animals; but that he has never met with it in those with cold blood.

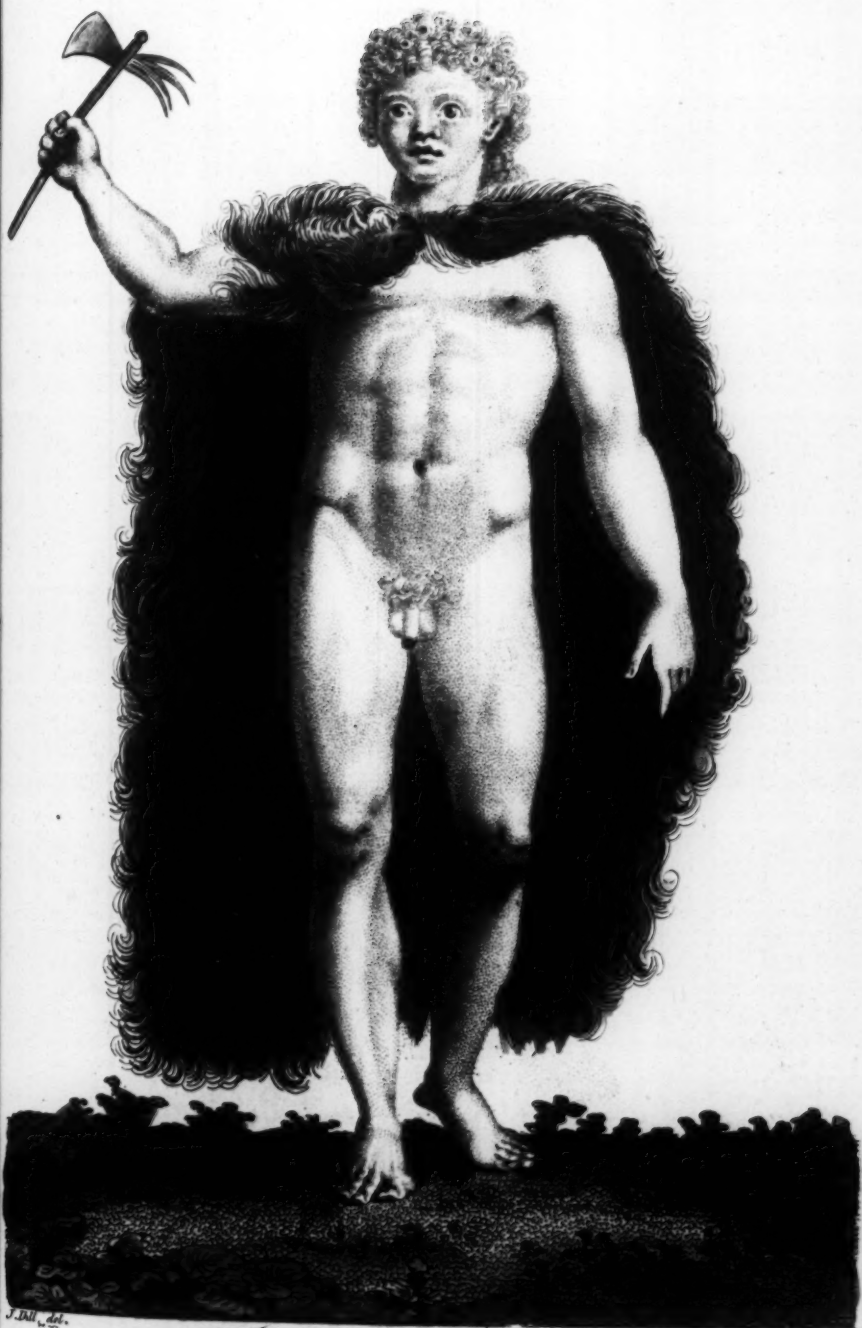
“ From his observation, he is of opinion, that the redness of the iris, and of the other internal parts of the eye, as well as the extreme sensibility that accompanies this redness, is owing to the total privation of that brown or blackish mucus, that, about the fifth week after conception, covers all the interior parts of the eye in its sound state. He observes, that Simon Pontius, in his treatise *de Coloribus Oculorum*, long ago remarked, that in blue eyes the interior membranes were less abundantly provided with this black
mucus,

mucus, and were therefore more sensible to the action of light. This sensibility of blue eyes agrees very well, says M. Blumenbach, with northern people, during their long twilight; while, on the contrary, the deep black in the eyes of negroes enables them to support the splendor of the sun's beam in the torrid zone.

"As to the connection between this red colour of the eyes and the whiteness of the skin and hair, the same learned physiologist says, that it is owing to a similarity of structure; *consensus ex similitudine fabricæ*. He asserts, that this black mucus is formed only in the delicate cellular substance, which has numerous blood-vessels contiguous to it, but contains no fat; like the inside of the eye, the skin of negroes, the spotted palate of several domestic animals, &c. And, lastly, he says, that the colour of the hair generally corresponds with that of the iris."

If this be true, the singular colour and constitution of these white negroes would be only a species of disease which they derive from their parents. But, if these white Indians are not produced by those of a copper colour, but from a distinct race, then they resemble the Chacrelas of Java, and the Bedas of Ceylon, which were formerly described. If, however, these white people actually proceed from copper-coloured parents, we must allow that the Chacrelas and Bedas have also been produced by tawny progenitors, and that all the white men, whom we find at such great distances from each other, form not a particular race, but are only individuals who have accidentally degenerated from their original stock.

This last opinion, I acknowledge, seems to be the most probable; and, if voyagers had given us descriptions of the Bedas and Chacrelas equally exact with what Wafer has given of the Dariens, we should perhaps have been satisfied that they are not, any more than the latter, of European extraction. The production of whites by negro parents, which sometimes



J. Hall del.

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The White Negro, male.



times happens, adds great force to this theory. I have seen one of them myself, who was brought into England by the Rev. George Whitfield, from America, and afterwards exhibited as a great curiosity; and, I am assured, that they are very frequent among the negroes of Africa. What I have seen, independent of the relations of voyagers, leaves me no room to doubt concerning the origin of these white negroes: they are only negroes who have degenerated from their race, and not a particular and permanent species of men: in a word, they are among the negroes what Wafer tells us the white Indians are among the yellow or copper coloured Indians of Darien, and, probably, what the Chacrelas and Bedas are among the brown Indians of the East. It is singular, that this variation of nature takes place from black to white only, and not from white to black. It is no less singular, that all the people in the East Indies, in Africa, and in America, where these white men appear, lie under the same latitude: the Isthmus of Darien, the negro country, and the Island of Ceylon, are under the very same parallel. White, then, appears to be the primitive colour of nature, which may be varied by climate, by food, and by manners, to yellow, brown, and black, and which, in certain circumstances, returns, but so greatly altered, that it has no resemblance to the original whiteness, because it has been adulterated by the causes already assigned.

Upon the whole, the two extremes continually approach each other. Nature, in her most perfect exertions, made men white; and the same nature, after suffering every possible change, still renders them white: but the natural or specific whiteness is very different from the individual or accidental. Of this we have examples in vegetables, as well as in men and other animals. A white rose is very different, even in the quality of whiteness, from a red rose which has been rendered white by the autumnal frosts.

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The natives of Peru are of a copper colour, especially those who dwell in the plains, and along the sea-coast; for those who live in the elevated parts of the country, as between the two chains of the Cordeliers, are nearly as white as the Europeans. Some parts of Peru are a league higher than others, which, with regard to the temperature of the climate, produces a greater change than an hundred leagues of latitude. All the Indians in Guiana and along the river of the Amazons, are more or less of a reddish tawny colour. The difference of shades, says M. de la Condamine, is chiefly owing to the temperature of the air, which varies from the extreme heat of the Torrid Zone to the great colds occasioned by the neighbourhood of the snow. Some of these savages, as the Omaguas, flatten the visages of their children, by lacing their heads between two boards. Others pierce the nostrils, lips, or cheeks, in order to fix in them the bones of fishes, feathers, and other ornaments. Most of them pierce their ears, and use flowers and herbs in place of ear-rings. Concerning the Amazons, who are said to have given name to this territory, they have been represented as governed and led to war only by their queen. No men were suffered to live among them; though those of some neighbouring nations were allowed to visit them at a certain season, for the sake of procreation. The females issuing from this commerce were bred up with care, and instructed in what relates to war and government; as to the males, they were sent away into the country of their fathers. But no such nation is at present to be found, any more than the giants and cannibals mentioned by the first adventurers thither.

The natives of Amazonia are of the common stature, with good features, a copper complexion, black eyes and hair. Their armour consists of darts, javelins, bows and arrows, and they wear targets of cane or fish-skin. They make slaves of their prisoners,
whom

whom they otherwise use very well. Every tribe is governed by its respective chief or king, the marks of whose dignity are a crown of parrots feathers, a chain of lions teeth or claws hung round his neck, or girt about his waist, and a wooden sword, which he carries in his hand. Most of these nations go naked. The men thrust pieces of cane through their ears and under-lips, as well as through the skin of the pudenda. At the gristle of their noses they also hang glass beads, which wag to and fro when they speak. They are such skilful marksmen, that they will shoot fish as they swim; and what they catch they eat without either bread or salt. They worship images, which they always carry with them on their expeditions; but they neither have temples nor any order of priests; and permit both polygamy and concubinage.

The savages of Brasil are nearly of the same size with the Europeans; but they are stronger, more robust, and more nimble: neither are they subject to so many diseases; and they live very long. Their hair, which is black, rarely grows hoary with age. Their colour is tawny, being a mixture of brown and red. They have large heads, broad shoulders, and long hair. They pull the hairs out of their beards, eye-brows, and every other part of their bodies, which gives them an uncommon and fierce aspect. They pierce their under lip for the purpose of inserting a small bone polished like ivory, or a green stone. The mothers flatten the noses of their children immediately after birth. They all go absolutely naked, and paint their bodies with various colours. Those of them who lie on the sea-coasts are now a little civilized by the trade they carry on with the Portuguese; but most of those who inhabit the interior parts of the country are still absolutely savages. It is not by force and by slavery that savages are civilized: the missionaries have polished more men in these savage nations, than the arms of those princes who

subdued them. It was in this manner that Paraguay was conquered. The natural ferocity and stubbornness of these savages were overcome by the gentleness, humanity, and venerable example, of the missionaries. They often spontaneously solicited to be instructed in that law which rendered men so perfect; and they frequently submitted to its precepts, and united with society. Nothing can reflect greater honour on religion, than the civilizing of these nations of barbarians, and laying the foundations of an empire, without employing any other arms but those of virtue and humanity.

Thus the whole continent of America appears to contain a race of men who are all more or less tawny: and, if we except the northern regions, where we find men similar to the Laplanders, and likewise men with fair hair, like the inhabitants of the north of Europe, all the rest of this vast territory is peopled with inhabitants, among whom there is little or no diversity. In the Ancient Continent, on the other hand, we have found a prodigious variety in different nations. This great uniformity among the natives of America seems to proceed from their living all nearly in the same manner. In the New Continent, likewise, the temperature of the different climates is more equal than in the Ancient Continent. This effect is the production of several causes. The Torrid Zone is not so hot in America as in Africa. The territories of America comprehended under this zone are Mexico, New Spain, Peru, the country of the Amazons, Brasil, and Guiana. The heat is never excessive in Mexico, in New Spain, or in Peru; because these countries are greatly elevated above the ordinary surface of the globe. The air is cooled by the snows which cover the tops of the mountains; and this cause, which is a consequence of the former, has great influence on the temperature of the climate. The natives also, instead of being black or very brown, are only tawny. The country

country of the Amazons is covered with lakes, marshes, rivers, and forests. There the air is extremely moist, and, of course, much cooler than if the lands were dry. It is, besides, worthy of remark, that the east wind, which blows constantly between the Tropics, arrives not at Brasil, the Amazon country, or Guiana, till it has traversed a vast ocean, and acquired a considerable degree of cold. It is for this reason, as well as the quantity of water, forests, and almost perpetual rains, that these regions of America are much more temperate than they would otherwise be. But the east wind, in traversing the low lands of America, acquires a considerable degree of heat before it arrives at Peru. The air in Peru, therefore, would be much hotter than in Brasil or Guiana, if it were not cooled by the elevation of the country and by snows. The east wind, however, still retains so much heat as to have an influence on the colour of the natives; for those who, by their situation, are much exposed to the east wind, are more yellow than those who live in the valleys between the mountains, and are protected from its effects. Besides, this wind, after striking against the high mountains, is reflected upon the adjacent plains, and carries along with it that freshness which it acquires from the snow that covers their summits; and the melting of the snow must, of itself, frequently produce cool winds. The united operation of these causes renders the Torrid Zone of America uncommonly temperate. It is not, therefore, surprising, that we find not, in this country, black or even brown men, similar to the natives of Africa or Asia, who live under the same parallels, where the circumstances of heat and cold are extremely different. Whether we suppose, therefore, the inhabitants of America to have been anciently or recently established in that country, we ought not to find black men there; because their Torrid Zone is a temperate climate.

America is not less singular for the uniformity in the figure and colour of its inhabitants, than Africa is remarkable for the variety of men it contains. This part of the world is very ancient, and very populous. The climate is extremely hot; and yet the temperature of the air differs widely in different nations. Their manners are also not less various, as appears from the description we have given of them. All these causes have concurred in producing a greater variety of men in this quarter of the globe than in any other: for, in examining the differences of temperature in the countries of Africa, we find, that, in Barbary, and all the regions adjacent to the Mediterranean, the men are white, and only a little tawny. This whole tract of country is refreshed, on one hand, by the air of the Mediterranean Sea, and by the snows on Mount Atlas on the other. It is, besides, situated in the Temperate Zone, on this side of the Tropic. All the natives, likewise, from Egypt to the Canary islands, are only more or less tawny. Beyond the Tropic, and on the other side of Mount Atlas, the heat becomes much greater, and the inhabitants are very brown, but not entirely black. When we come, however, to the 17th or 18th degree of north latitude, under which Senegal and Nubia are situated, the heat is excessive, and the natives are perfectly black. At Senegal, the liquor in the thermometer rises to 38 degrees, while it seldom exceeds 25 in Peru, though it be situated under the Torrid Zone. In Nubia, we have no observations made with the thermometer: but all travellers agree in declaring the heat to be excessive. The sandy deserts between Upper Egypt and Nubia heat the air to such a degree, that the north wind must be extremely scorching in that country. Besides, as the east wind, which generally blows between the Tropics, arrives not at Nubia till it has traversed Arabia, it is not surprising to find the natives very black. It is still less surprising to see the inhabitants
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of Senegal perfectly black ; for the east wind, before it reaches them, must blow over the whole of Africa in its greatest breadth, which renders the heat of the air almost insupportable. Taking, therefore, the whole of Africa, situated between the Tropics, where the east wind blows most constantly, we may easily conceive why the western coasts of this part of the globe should and actually do suffer a greater degree of heat than the eastern coasts ; for this wind arrives at the eastern coasts with a freshness which it acquires by traversing a vast sea ; but, on the other hand, before it arrives at the western coasts, it acquires a scorching heat by blowing across the interior regions of Africa. It is for this reason that the coasts of Senegal, Sierra Leona, Guinea, and all the western parts of Africa situated under the Tropics, are the hottest climates on the globe. It is not near so hot on the eastern coasts as at Mozambique, Mombaza, &c. I cannot, therefore, hesitate in ascribing to this reason the cause of our finding the true negroes, or the blackest men, on the western territories of Africa, and Caffres, or men of a less deep blackness, on the eastern coasts. The difference between these two kind of blacks, which is very apparent, proceeds from the heat of the climate, which is not very hot in the eastern parts, but excessive in the western. Beyond the Tropic on the south, the heat considerably diminishes, both on account of the higher latitude, and because the point of Africa begins to turn narrow ; and this point of land, being surrounded by the sea, receives fresher breezes than if it had been in the midst of a continent. The natives also of this country begin to whiten, and are naturally more white than black, as was formerly remarked. Nothing can prove more clearly that the climate is the principal cause of the varieties of mankind, than this colour of the Hottentots, whose blackness could not be diminished but by the temperature of the climate.

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We shall be the more confirmed in this opinion, if we examine the other people who live under the Tropics to the east of Africa. The inhabitants of the Maldiva islands, of Ceylon, of the point of the Indian Peninsula, of Sumatra, of Malacca, of Borneo, of Celebes, of the Philippine islands, &c. are all very brown, without being absolutely black; because all these territories are either islands or peninsulas. The sea, in these climates, has a great effect in tempering the air; and besides, the east and west winds, which blow alternately in this part of the globe, pass over a vast extent of sea before they arrive at this Archipelago. Thus all these islands are peopled with brown men, because the heat is not excessive. But in New Guinea we find blacks, who, from the description of voyagers, appear to be real negroes; because, in this country, which extends so far to the east as to form a kind of continent, the wind which traverses it is much hotter than that which prevails in the Indian ocean. In New Holland, which is not so hot a climate, the natives are less black, and very similar to the Hottentots. Do not these Negroes and Hottentots, who live so remote from the other people distinguished by that appellation, prove that their colour depends on the heat of the climate? No communication can ever be supposed to have taken place between Africa and this southern continent; and yet we find there the same species of men, because the same circumstances concur in producing the same degree of heat.

Thus it appears, that the existence of negroes is confined to those parts of the earth where all the necessary circumstances concur in producing a constant and an excessive heat. This heat is so necessary, not only to the production, but even to the preservation, of negroes, that it has been remarked in our West-India islands, where the heat, though great, is not comparable to that of Senegal, that the negro infants are so liable to be affected by impressions from the
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air, that the proprietors are obliged to keep them, for the first nine days after birth, in close warm chambers. If these precautions be neglected, and the children exposed to the air immediately after birth, they are likely to be affected with a tetanus, or locked-jaw, which proves fatal, because it deprives them of the power of taking nourishment. This precaution is however too often neglected, as a vast number of infant negroes still perish yearly in the West-India islands of a locked-jaw. M. Littre, who dissected a negro in the year 1702, remarked, that the end of the glans, which was not covered with the prepuce, was black, and that the part of it which was covered was perfectly white. This observation demonstrates, that the air is necessary to produce the blackness of negroes. Their children are born white, or rather red, like those of other men. But, two or three days after birth, their colour changes to a yellowish tawny, which grows gradually darker till the seventh or eighth day, when they are totally black. It is well known, that all children, two or three days after birth, are affected with a kind of jaundice, which among white people soon passes off and leaves no impression: but in negroes, on the contrary, it gives an indelible colour to the skin, which becomes always more and more black. M. Kolbe remarks, that he has seen Hottentot children, who were born as white as the Europeans, become olive in consequence of this jaundice, which spreads over the skin three or four days after birth, and never goes off. This jaundice, and the impression of the air, however, are only the occasional, and not the primary, causes of blackness; for it has been observed, that the children of negroes, as soon as they come into the world, have black genitals, and a black spot at the root of their nails. The action of the air, and the jaundice, may, perhaps, help to expand this colour; but it is certain, that the rudiments of blackness are communicated to them by their parents.

rents; that, in whatever part of the world a negro is brought forth, he will be equally black as if he had been born in his own country; and that, if there is any difference in the first generation, it is so small as scarcely to be perceptible. This fact, however, implies not that the colour will continue the same after many successive generations. On the contrary, there are many reasons for presuming, that, as this colour is originally the effect of a long-continued heat, it will be gradually effaced by the temperature of a cold climate; and consequently, that, if a colony of negroes were transplanted into a northern province, their descendants of the eighth, tenth, or twelfth, generation, would perhaps be as white as the natives of that climate.

Anatomists have enquired into the seat of this black colour. Some of them alledge, that it neither resides in the skin nor scarf-skin, but in the cellular membrane between them; that this membrane, after long maceration in hot water, retains its original blackness; but that the skin and scarf-skin appear to be as white as those of other men. Dr. Town, and some others, have maintained, that the blood of the negroes is black, and that their blackness originates entirely from their blood. I am much inclined to believe this fact; for I have observed, that, among us, the blood of those persons who have tawny, yellowish, or brown, complexions, is blacker than that of those who are fairer. M. Barrere, who seems to have examined this subject most minutely, tells us, and M. Winslow agrees with him, that the scarf-skin of negroes is black; and, though its extreme thinness and transparency may make it appear white, that it is really as black as the blackest horn, when reduced to the same degree of thinness. They also assure us, that the skin of negroes is of a reddish-brown colour, approaching to black. This colour of the negroes, according to Barrere, is produced by their bile, which he affirms, from several dissections he made in Cayenne, instead of yellow,

low, to be as black as ink. The bile, when absorbed and dispersed through the body, tinges the skin of white people yellow; and, if it were black, it would probably produce a black colour. But, as soon as the effusion of the bile ceases, the skin resumes its natural whiteness. We must, therefore, suppose that the bile of the negroes is perpetually effused, or, as Barrere alleges, that it is so abundant as to be naturally secreted in the scarf-skin, and to tinge it of a black colour. Upon the whole, it is probable, that both the bile and the blood of negroes are browner than those of white people, as their skin is likewise blacker. But one of these facts cannot be admitted to prove the cause of the other; for, if the blackness of the blood or bile be allowed to give the same colour to the skin, then, instead of demanding why the skin of negroes is black, we ought to ask why their blood or their bile are of that colour? This species of false reasoning, instead of solving the question, renders it still more intricate. To me it has always appeared, that the same cause which makes our complexion brown, after being exposed to the action of the air, and to the rays of the sun, which renders the Spaniards more brown than the French, and the Moors than the Spaniards, also renders the Negroes blacker than the Moors. Besides, I am not here inquiring how this cause acts; I only mean to ascertain that it does act, and that its effects are more perceptible in proportion to its strength and time of acting.

The heat of the climate is the chief cause of blackness among the human species. When this heat is excessive, as in Senegal and Guinea, the men are perfectly black; when it is a little less violent, the blackness is not so deep; when it becomes somewhat temperate, as in Barbary, Mogul, Arabia, &c. the men are only brown; and, lastly, when it is altogether temperate, as in Europe and Asia, the men are white. Some varieties, indeed, are produced by the mode of

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living. All the Tartars, for example, are tawny, while the Europeans, who live under the same latitude, are white. This difference may safely be ascribed to the Tartars being always exposed to the air; to their having no cities or fixed habitations; to their sleeping constantly on the ground; and to their rough and savage manner of living. These circumstances are sufficient to render the Tartars more swarthy than the Europeans, who want nothing to make life easy and comfortable. Why are the Chinese fairer than the Tartars, though they resemble them in every feature? Because they are more polished; because they live in towns, and practise every art to guard themselves against the injuries of the weather; while the Tartars are perpetually exposed to the action of the sun and air.

But, when the cold becomes extreme, it produces effects similar to those of violent heat. The Samoi-edes, the Laplanders, and the natives of Greenland, are very tawny. We are even assured, that some of the Greenlanders are as black as the Africans. Here the two extremes approach each other. Great cold and great heat produce the same effect upon the skin, because each of these causes acts by a quality common to both; and this quality is the dryness of the air, which, perhaps, is equally great in extreme cold as in extreme heat. Both cold and heat dry the skin, and give it that tawny hue which we find among the Laplanders. Cold contracts all the productions of nature. The Laplanders, accordingly, who are perpetually exposed to the rigours of frost, are the smallest of the human species. Nothing can afford a stronger example of the influence of climate than this race of Laplanders, who are situated along the whole polar circle, in an extensive zone, the breadth of which is limited by nothing but excessive cold; for that race totally disappears, whenever the climate becomes a little temperate.

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The most temperate climate lies between the 40th and 50th degree of latitude, and it produces the most handsome and beautiful men. It is from this climate that the ideas of the genuine colour of mankind, and of the various degrees of beauty, ought to be derived. The two extremes are equally remote from truth and from beauty. The civilized countries, situated under this zone, are Georgia, Circassia, the Ukraine, Turkey in Europe, Hungary, the south of Germany, Italy, Switzerland, France, England, Ireland, and the northern parts of Spain. The natives of these territories are the most handsome and most beautiful people in the world.

The climate may be regarded as the chief cause of the different colours of men. But food, though it has less influence upon colour, greatly affects the form of our bodies. Coarse, unwholesome, and ill-prepared, food, makes the human species degenerate. All those people who live miserably, are ugly and ill-made. Even in France and England, the country people are not so handsome as those who live in towns; and I have often remarked, that in those villages where the people are richer and better fed than in others, the men are likewise more handsome and have better countenances. The air and the soil have great influence upon the figure of men, beasts, and plants. In the same province, the inhabitants of the elevated and hilly parts are more active, nimble, handsome, ingenious, and beautiful, than those who live in the plains, where the air is thick and less pure. In France, it is impossible to perpetuate the race of Spanish or Barbary horses: they degenerate even in the first generation, and, in the third or fourth, unless the breed be crossed by the importation of fresh stallions, they become altogether French horses. This is also very remarkable in the English bull-dog. Thus also, the blackbird, the raven, and the crow, which with us are black, are grey or white in the north; and the union

of the same species in the same climates makes these varieties hereditary.

With respect to the peculiar manners of the savage tribes, too many authors seem to have mistaken the particular actions of individuals, which often result from caprice or unknown circumstances, for the general and established customs of a whole nation. Some, they tell us, eat their enemies; others burn or maim them; some delight in war; others love peace. Some kill their parents after they arrive at a certain age; among others, the fathers and mothers eat their own children. These, and similar narrations, so much delighted in by travellers, are reducible to single facts, and import no more, than that one individual savage ate his enemy, another burnt or maimed him, and a third killed or ate his own child. All these examples may be found in every savage nation; for a people who live without the restraint of fixed laws, or of a regular government, can only be considered as a tumultuous assemblage of barbarous and independent individuals, who obey no laws but those of passion and caprice, and who, having no common interest, are incapable of pursuing any determined standard of manners, which supposes general views that have obtained the sanction both of time and a majority of numbers.

A nation, it may be said, is composed of men who are known to each other, who speak the same language, who unite, when necessary, under the same chief, who use the same arms, and who paint themselves with the same colours: to this we might subscribe, without difficulty, if these manners were constant and uniform; if the people did not often unite and separate without design; if their chief lost not all authority by their caprice or his own; and if their language was not so simple as to be almost common to every tribe. As they have but few ideas, their expressions are limited to the most common objects; and, though every mode of expression should differ from
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another, yet the smallness of their number necessarily renders them of easy acquisition. It is not, therefore, so difficult for a savage to learn the language of all other savages, as for a polished man to learn the language of another polished people, equally advanced in literature. But it is, perhaps, of more importance to examine the nature of the individual savage, than to enlarge upon the manners and customs of these nations. Of all animals, a savage man is the most singular, the least known, and the most difficult to describe. We are so ill qualified to distinguish the genuine gifts of Nature from what is acquired by education, art, and imitation, that it would not be surprising if we should totally mistake the real portrait of a savage, though the natural colouring and features of his character were faithfully represented to us. An absolute savage, such as the youth brought up by the bear, described by Conor, Peter the wild boy, found in the forest of Hanover, or the girl discovered in the woods of France, would be a curious object to a philosopher, by the contemplation of which he might estimate the force of natural appetites. Here he would see the mind perfectly naked; he might distinguish all its movements; he might perhaps discover in it more sweetness and tranquillity than in his own; he might, perhaps, clearly perceive, that virtue is more natural to the savage than to the civilized, and that vice derives its origin and support from society alone.

As to the different colours of the human species, in all parts of the universe, we must consider the *white* as the stock whence all others have sprung. Adam and Eve and their posterity, till the time of the deluge, were white; in the first age of the world no black nation was to be found on the face of the earth; the regions of the Torrid Zone were then unknown. Let us consult the sacred and profane historians, and we shall find that Noah, his three sons, and their wives, who were saved in the ark, divided among themselves
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the whole old continent, in which Africa was then included. The dispersion of Noah's descendants did not take place till after the confusion of tongues at Babel. Those who passed into Africa, multiplied there, and their posterity penetrated by degrees to the extremity of the peninsula. The original inhabitants of Africa were at first white; but by living there they afterwards became somewhat tawny: their children were of a darker hue, and almost mulattoes; in the progress of time other succeeding generations became complete Moors; those who spread towards the Tropics soon became half blacks; and those who lived under the Equator, or in the Torrid Zone, from the influence of the sun and climate, appeared in the course of a few generations perfectly black. A very considerable space of time must necessarily have elapsed before this gradual and imperceptible change could be produced. The Ishmaelites, Saracens, Moors, and Arabs, who invaded the western part of Africa, likewise became black in a few generations; while those of the same nations who invaded Spain, underwent little or no change of colour; which was whitish in some and tawny or yellow in others. M. de Manet, who has lately published an excellent history of Africa, conjectures that the complete change from white to perfect black might have been at the end of three centuries; this makes fifteen generations, allowing twenty years for each generation. Benjamin de Tudelle, the celebrated Jewish traveller, said, in 1175, that the white colour became perfectly black in no more than six centuries, and in the course of thirty generations without crossing the breed. A greater number of generations is undoubtedly necessary, before negroes, when transplanted into our temperate countries, can entirely lose their black colour.

The following is a table of the mixtures which produce a degradation of the black and white colours in the human species; viz. 1. A white man with a negro

gro woman, or a negro man with a white woman, produce a mulatto, half white and half black, or of a yellow-blackish colour, with black, short, frizzled, hair. 2. A white man with a mulatto woman, or a negro with a mulatto woman, produce a *quarteron*, three-fourths white and one-fourth black, or three-fourths black and one-fourth white, or of a lighter yellow than the former. In America, they give the name of *cabres* to those who are descended from a black man and a mulatto woman, or a mulatto man and a black woman, who are three-fourths black and one-fourth white, and who are not so black as a negro, but blacker than a mulatto. 3. A white man with a quarteron woman, or a negro with a quarteron woman, produce a *mestizo*, seven-eighths white, and one-eighth black, or seven-eighths black and one-eighth white. 4. A white man with a *mestizo* woman, or a negro with a *mestizo* woman, produce, the one almost a perfect white, the other almost a perfect black. In following generations, if a constant intermixture has taken place, and the white has been married in Europe, or the black in Senegal, the complexion will gradually come fairer or darker, till the offspring is either entirely black, or entirely white.

Such is the progress of physical effects and causes in the degradation of the colour of the human species. Crossing the breed for four generations is sufficient to render a negro white, and the same will make a white black. It is evident that the mixtures, a mulatto man with a quarteron or *mestizo* woman, will produce other colours approaching to white or black, in proportion to the progression above stated.

If we examine philosophically, and with attention, two negroes, the one of the ancient and the other of the modern race, we shall observe that those parts of the skin which are not exposed to the sun's rays, or but in a small degree, lose their colour, or at least retain
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but a slight tint of it, such as the arm-pits, the spaces between the fingers, the inside of the hands, the space under the chin, the soles of the feet, the space between the thighs, and the lower part of the belly; whereas the head, the outside of the arms, the back, the belly, and the shoulders, being continually exposed to the air (for their skin is their only covering), are of a blacker colour. The women who are employed in washing, and whose hands are consequently often in the water, have these parts almost white. In those who have received wounds, who have suffered by burnings, or who retain marks of the small-pox, the parts which were affected retain a tawny colour.

Seeing, then, that we are all derived from one common parent, is it not barbarous and inhuman to make perpetual slaves of our fellow-creatures, merely because they differ from us in colour, and are less informed in the arts and subtilties of life? To those, who, under the necessities of commerce, still persist in the unnatural trade of bargaining for human flesh, and consigning their innocent but unfortunate brethren to eternal servitude and misery, we may address the words of a fine writer, "Let avarice defend it as it may, there is an honest reluctance in humanity, which will ever revolt against buying and selling our own species, and regarding them as our cattle, or our wealth and possessions."

OF THE GENERATION, OR REPRODUCTION, OF THE HUMAN SPECIES.

IN that union of the sexes to which we are instinctively impelled; or rather, in the union of those essences or tinctures peculiar to the generative organs of the male and female, by the contact of which the first moments of human existence commence, the most whimsical and absurd theories have been set up. No branch of physiology has been more exposed to cen-
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sure and mistake. While the phenomena of the heavens, of the earth, and even of the human mind itself, are traced with a steady hand, and with all the dignity of philosophy, the functions of the human body, though expounded with a profusion of fantastical erudition, appear almost in as much doubt and darkness as in the days of Paracelsus.

Let us then endeavour to remove the cloud, and review the mode by which generation is really accomplished. I have, in the early part of this volume, mentioned the systems of Buffon, and of Lewenhoeck, in their speculations on the animalculæ found in the seed of man, by the means of which they imagined conception, and the reproduction of the human species, to take place. I shall here, however, consider it in a new light, both as it concerns the propagation of the body, and of family temper, likeness, and disease; but as the female organ is so materially concerned in this mysterious act, and hence requires a minute investigation, I shall, for that purpose, adopt the reasoning of a late ingenious author, whose opinion of the action and powers of the female generative parts, exactly coincides with my own.

The extremity of the uterine system, without the nymphæ, seems not, except from its aperture and the lascivious susceptibility of its texture, materially requisite to generation. Immediately within the nymphæ, the *vagina*, or great canal of the uterus, begins. Before coition has disturbed its proportions, it is generally about five or six inches long; and when thrown into a circular form, without violent distention, its diameter is about a sixth part of its length. But as, in coition, the vagina is the immediate receptacle of the male organ, it is capable of great distention, and may be rendered of very considerable capacity. In general, however, after frequent contact, this canal becomes much shorter, but more proportionably increased in its diameter; yet being contrived by its organization

for the purpose of exciting titillation and pleasure, it can and does accommodate itself to whatever size is necessary closely to embrace the male in the act of copulation.

At the upper extremity of this canal, the uterus or womb is seated. It is of a pyramidal form, with its apex towards the vagina. Its greatest length, in virgins, is not more than two or three inches; and its width is scarcely one; its internal cavity must therefore be very small. It is connected to the vagina or great canal by a passage so small, that a bodkin or stilet cannot be introduced without much difficulty. In the broad or upper extremity of the womb, the ovaria are seated. Their substance is spongy, and they contain an indefinite number of vesicles of a duskyish semitransparent quality, the involucra of which are distinct, and similar to the general substance of the ovaria. These vesicles are the ova or eggs, which contain the rudiments of the fœtus, and which must absolutely be impregnated with the male seed, before it can be possible for generation to take place.

Now it has been, and still is, the common opinion, that when venereal embraces occur, the whole genital system of the male being thrown into action by libidinous desire and violent friction, by this exertion the semen is thrown with considerable vehemence from the male, and is either forced through the mouth of the womb, and attracted by the ovaria; or, that it is received by the Fallopian tubes, and conveyed by them through a variety of convolutions, till by their fimbriæ they are conducted to the ovaria; all which tedious and complicated process is alledged to take place in the instant of coition.

Others again suppose, that the internal orifice of the womb becomes open and pervious during the exertion and enjoyment of copulation, and that the glans of the male organ absolutely enter into the cavity of the womb, and eject the seed immediately upon the ovaria.

To

To each of these theories, however, there appear insuperable objections. In refutation of the first, we need only observe, that the vagina, from its structure, and from its organization in the act of venery, is disposed strongly, and in every part, to embrace the male organ; and as the glans must thereby be closely surrounded, although it reaches not in every person to the furthest limits of the vagina; the slight and momentary impetus of the semen will thus be very effectually resisted, if not totally subdued. If the male organ be not of magnitude sufficient to occupy the vagina to its full extent, the unoccupied space must be somehow distended; and, let this vacuum be what it will, its resistance must be effectual; and, if it be not distended, the power or pressure which occasions its collapse will over-balance the impetus of the semen. But supposing the virile member in all cases to be so exactly proportioned as to occupy the whole length of the uterine canal, which however we know is not the case, yet from what principle shall we ascertain that the feminal tube of the male organ, and the apex of the womb, shall be made so exactly to correspond, as to become continuous? The semen, in the event of coition, is doubtlessly thrown out with some force, though this force will always depend upon the vigour of the male organs, and therefore must vary from the lowest to the highest degree of vigour of which those organs can be susceptible. But even allowing the glans penis and apex of the womb to fall into exact contact upon due penetration, and that the male seed is always ejected with considerable force, and the vagina to be no barrier to the progress of it, yet how is it to force its way into the cavity of the womb? The aperture which leads from the vagina or great canal into the womb, is in fact no aperture at all. During menstruation, indeed, it is pervious; but even then it is only capable of admitting a very small probe; and this is no argument that it is naturally, and at other times, pervious. How often too has this aperture

been entirely blocked up by preternatural obstructions, and conception nevertheless taken place? Instances of this have often occurred; and the precision and authority with which they are recorded by different practitioners, leave no room to evade the argument. Hence this mode of impregnation appears not only highly objectionable, but utterly impossible; having no correspondence with the human structure, or with the economy of Nature.

After what has been said, it may appear idle to prosecute any farther refutation of the progress of the male seed by the Fallopian tubes, or through the mouth of the womb. But as authors of the greatest respectability have believed in its progress through the tubes, and tell us they have even seen it there, it may not be improper to enquire how far this is ascertainable. The Fallopian tubes, through which the semen is said to pass, originate, by very minute perforations, through the fundus of the womb; and, encreasing rapidly in their diameters, their capacities, when dilated, may be about the third part of an inch where they approach the ovaria. Here, again, they suddenly contract, leaving only a small opening; while their main substance is still continued, and is expanded into that plaited or jagged fringe called the fimbriæ, which is contiguous to the ovaria*. I shall now ask, by what law in nature, by what effort of it, is the male semen to be conducted through this conical and convoluted canal? Can the semen now possess any active force, to introduce itself through the rigid perforations of this organ, and to overcome the collapse of the tubes? The stimulating power of the semen must soon be lost in a vessel which has no power to distend; and we cannot suppose it capable of acting in a direction completely opposite to what is the acknowledged office of the tubes. It must be by irritability that the ovum

* See the Medical Part of my Family Physician, page 17, 89, 97, &c. where all the parts, both male and female, are anatomically described, and illustrated by elegant copper-plate engravings.

is conveyed into the uterus from the ovaria; and we know no vessels in any part of the body whose action is double and contrary. This system therefore favours of great improbability. But we are told, by some, that they have actually seen the male semen in its unaltered state, lodged in the Fallopian tubes. These sagacious authors might as prudently have affirmed, that they had seen snow upon the canal in Hyde-park at midsummer. They did not know, or did not choose to recollect, because it made against pre-conceived opinion, that the human seed, when subjected to heat, especially to such a moist and natural heat as those parts constantly afford, soon loses its spissitude and tenacity, and becomes very subtilly fluid, and almost colourless. Besides, it is universally acknowledged, that a considerable part of the semen is almost always, immediately after coition, rejected by the female. When we attend to the many instances of credulity and imposition in the theories of generation, we need not marvel at the aptitude and facility with which pretended discoveries creep into notice, and the solemnity with which they obtrude themselves into systems.

All the foregoing arguments against the possibility of a pervious communication between the vagina and the uterus, are also conclusive against the suggestion, that the male organ, in the event of coition, penetrates into the cavity of the womb. Nor is the assertion of those who contend that this orifice, by the turgidity of the parts during coition, naturally opens and dilates itself to receive the male seed, marked with the least degree of probability. How is this dilatation of the orifice to be effected? Though the whole uterine system, during the venereal act, be rendered turgid by animal desire and influent blood, yet it is more probable that this turgidity would rather compress than dilate the orifice; and the structure and texture of the womb seem exceedingly unfavourable to sudden dilatation by any means whatever. In an unimpregnated
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or virgin state, the womb is so small that its sides coalesce or adhere together, and it has no hollow appearance whatever; though, from the texture and elasticity of its fabric, it may be thrown into a globular form, which will constitute a cavity. But in coition, with all its occult and uncommon phenomena, what charm have we left to overcome this coalescence, and form this cavity, by opening or separating the membranous sides of the womb? Will it here be said that the forcible ejection of the male semen will effect this purpose, or that the turgid state of the male organ will force its way into a fabric so remote and delicate? Though females may entertain sanguine ideas of these things, we must suppose that the vigilant anatomist, toiling through the unalarming and chilly organs of the dead, ought to furnish a more rational hypothesis, whence to deduce the active principle and admirable process of the human impregnation.

Authors have been always eager to establish the certainty of a considerable afflux of blood to the female organs, and consequent turgidity during the voluptuous communication of the sexes; and this has been a wonderful prop to many absurd conjectures. This afflux, and consequent turgidity, they suppose originates, like the erection of the penis, from the strength of libidinous ideas, and other locally irritating causes, and is intended by nature to induce a tension in the female organs, that the progress of the semen may thereby be facilitated. This tension, again, they suppose induces some kind of constriction, which is said to support the action of the different parts of the genital system, but particularly of the Fallopian tubes. These tubes, it is said, are remarkably distended, during coition, by the blood rushing into the numerous vessels which creep between their coats, by which means they are erected, and their fimbriated terminations applied to the ovaria; and it is gravely added, that dissections of gravid women, and the comparative

parative anatomy of brutes, corroborate the opinion. Were it not for the serious respect with which this anatomical observation hath for a length of time been favoured, no body surely would be at the pains of detecting the absurdity. Allowing that this turgidity, with all its concomitant circumstances, really happens in the living subject, how can it possibly exist in a carcase flaccid with death, and, as is always the case in a human anatomized body, where death must have taken place some considerable time before?

But this turgidity, though it sometimes may happen; and yet in a degree very limited to what is alledged, does not always happen; and, when it really does take place, it seems rather to be the companion and promoter of libidinous gratification, than a principal and essential promoter of conception. To many women the embraces of the male are extremely, if not completely, indifferent; and to some they are absolutely disagreeable; yet even these women are prolific. There is no difficulty in suggesting a very sufficient and natural reason why the parts of the female, directly subjected to the action of the male organ, during the venereal congress, should become turgid with influent blood, and sometimes be constricted. Nature, though she seems in general unfriendly to excessive lust, yet sometimes permits it; and these are the means she seems to have appointed for heightening it. Besides, it is proper that the animal instinct, which prompts the reproduction of the species, should not be disappointed in its gratification, however brutal these sensations and ideas may appear to the purified philosopher. These means then, however they may contribute to the mutual sensibility of the sexes, in the voluptuous gratification of animal pleasure, appear to have no real influence on the process of generation, after the venereal congress has ceased; nay, we have reason to believe that their action or influence does not extend beyond the limits of the vagina, except in common with the rest of the
general

general system, even during that congress. If an afflux of blood to these parts were always to be attended with these effects, what violence must the ovaria be exposed to by reiterated coition, and by every return of the menstrual discharge! During the menstrual afflux, a very considerable distention must surely take place over the greatest part, if not the whole, of the genital system; and, as this turgidity is the principal reason assigned for the action of the tubes, by what means are the fimbriæ diverted from exercising those functions which turgidity, though from another cause, at another time so successfully instigates? Also how happens it that grateful copulation is not always productive, and the contrary? that the fimbriæ, in every venereal act, do not operate upon the ovaria, and thereby produce more fœtuses, or a waste of the ova? and that the organs themselves are not incapacitated, or diminished in their energy, by such repeated exertions? We have every reason then to conclude, that the tension and constriction of the female organs, induced by the afflux of blood during coition, if of consequence at all, are intended solely to promote animal gratification; and that they have no direct influence on the actual progress of the semen through the above-described communications to the ovaria.

Upon the whole, it is certainly no way equivocal, that the semen cannot, in any manner, be applied to the ovaria by means of the fimbriæ; that it cannot ascend or advance through the convolutions of the Fallopian tubes; that it cannot divaricate and traverse the compressed uterus; and that it cannot even operate a passage through the rigid bulwark of the cervix uteri. The probability of the progress of the *aura seminalis* through the same paths is destroyed by the same arguments; and the whimsical opinions founded on the presence of animalcules in the semen, and on the organic bodies furnished by the semen of both sexes, and uniting in the uterus, as far as this alledged aperture is concerned,

concerned, must stand or fall by the same fate. It may seem however strange, that a doctrine so ancient, and so universally believed, should be so easily overthrown; and it may furnish, to the speculative reader, unfavourable ideas of the present state of medical literature. He may indeed wonder, that, though every science has become rational and respectable by the exertions of their cultivators, medicine alone has been able to resist the diligence of a thousand years; although it has been wrested from the hands of nurses, and its profession become dignified and lucrative, it can scarcely be said, at this day, to afford one unquestionable idea. In the volumes of physiology, compiled by the most learned physicians, and drawn from the most learned sources, will the unconcerned philosopher find the dogmata of medicine consistent with nature, or with common sense?

But since the semen, in some shape or other, contains that animating principle which is indispensibly necessary for the reproduction of human beings, and since the ovaria as indisputably produce something from whence a living creature is to be evolved, it becomes demonstrably clear, that the influence of the male seed must be powerfully incorporated with the female, and directed to the ovaria, before this effect can possibly take place. We have already seen how this cannot happen; let us now endeavour to point out a rational medium by which it may be accomplished. For this purpose we must again return to the vagina, or canal of the uterus, as being the principal organ, on the part of the female, which actually contributes to propagation; and without the full and complete use of which, impregnation cannot take place. It therefore demands a very minute and attentive consideration.

The vagina is elastic, and somewhat membranous, composed of muscular fibres, blood-vessels, nerves, and lymphatics. It commences, from beneath, at the nym-

phæ, and, rising obliquely about five inches, is lost upon the uterus. Its capacity is very different in different subjects, and in no very distant periods of life in the same subject. A very respectable anatomist finishes his description of it by saying, it is, "*membro virili secundum omnes dimensiones accommodabilis.*" Its inner membrane, though very uneven, is delicately smooth, and, from its nervous texture, exquisitely sensible; the outer membrane is more spongy and muscular; and the whole body of the canal is very plentifully supplied with blood-vessels, nerves, and lymphatics. We know little more of the lymphatics of these parts, than that they are more numerous proportionally than in any other part of the body. Those which originate in the exterior parts of the female genital system traverse the inguinal glands; while the deep-seated ones take a much more direct course to their place of union with the lacteals: but of these we shall be more particular, when we adduce our observations in favour of a very powerful absorption subsisting in the vagina.

The entrance into the canal of the uterus from without is guarded by the nymphæ, which form an eminence on each side, so peculiarly constructed and arranged, that we must think lightly of the physiologist who could suppose them to be only appendages in office to the urethra. Indeed, as nature frequently operates more than one end by a particular structure, we shall not pretend to limit the secondary or inferior offices which the nymphæ may promote; but we see much reason to believe them created to assist powerfully in preventing the speedy escape of the male semen, and thereby exposing it longer to the action of the absorbent system. A multitude of circumstances corroborate this belief; and it will not be impaired by the allegation, that these ridges by no means constitute a regular and complete valve. Immediately within this barrier, a structure, on the same principles as those

those of the nymphæ, but more elegant and powerful, commences; and it is continued over the surface of the vagina, gradually growing finer, till it is lost in smoothness near the upper extremity of the canal. This structure is the rugæ of the vagina, so accurately drawn and described by Haller and others: but degraded by some anatomists, who mark it only as useful in exciting venereal enjoyment, or admitting expansion during coition and parturition. It is insinuating a mean and disgraceful reflection on the important order and operations of nature to suppose, that these rugæ, which are not casually arranged, but are regulated with as much precision and uniformity as we can trace in any other part of the general system; I say, that it is nugatory and presumptuous to assert, that this intricate, extensive, and beautiful, arrangement, has been so minutely laboured for no other purpose, but merely to excite a greater titillation during the gross and libidinous commerce of the sexes, and a greater extension during parturition. This structure may indeed promote secondary purposes: but it is intended for much nobler ends. Had these rugæ been constructed merely for simple contraction and dilatation, they would have covered equally the whole surface of the vagina, which certainly does not happen; neither, if these had been their principal uses, would they be so soon and so easily obliterated. We believe, then, that the rugæ of the vagina are thus contrived principally to protract the semen in that viscus, after the male organ is withdrawn, and thereby to favour absorption; especially as the qualities of the semen coincide wonderfully with these intentions.

The semen, as it is secreted from the blood in the testicles, is very different from that heterogeneous mixture which is expelled by the urethra in coition; though, by the alteration, its fecundating quality is not improved. When it is conveyed into the vesicles, it is of a thin consistence, of a pale yellowish colour, and little in quantity. In these vesicles it is somewhat
 T t 2 inspissated,

inspissated, and its colour heightened; and, after it is mixed with the liquor of the prostrate glands, it becomes still thicker, and of a more whitish colour. This consistence which the semen acquires in its progress from the testicles, may produce other flight properties; but the principal intention of it seems to be, to correspond more effectually with the absorbent power of the vagina: for thus, by the increased tenacity of the semen, the remora of its fecundating part must be protracted in the vagina, while at the same time the absorbents are allowed more time to attach those active subtle parts intended to be carried into the circulating system. We may add here, in order farther to confirm the opinion concerning the use of the tenacity of the semen, that when too little of this mucilage is derived from the glands, or when it is of a depraved or thin quality, the whole mixture escapes the machinery of the vagina too rapidly, and hence coition becomes unproductive. This is the feminal serocity, as it is called, held to be one of the few causes of sterility in man. And we may add farther, that when the consent and power of procreation begins to fail on the part of the woman, the crenulations of the vagina are then always visibly decayed, whether affected by the advances of age, or by imprudently-reiterated venery. But what are we to think of a very respectable author, who gravely tells us, that the semen, by stagnation, and by the addition of the cream-like liquor of the prostrate glands, is better suited to the projecting effort of the urethra in the event of coition? Indeed, it is not to be denied, that the increase in quantity of the feminal mixture may enable the projectile power of the urethra, with its aiding muscles, to act with greater efficacy; but a boy would laugh in my face were I to tell him, that, by adding to the weight and tenacity of the water, his squirt would throw it much farther. To act in concert, then, with these unquestionable qualities of the semen, the surface of the vagina,

gina, by means of its rugæ, from their elevation and arrangement, must have a very considerable effect in heightening the remora we have described. No doubt, if nature only had in view the prevention of the regrefs of the semen, we might have met with a much simpler mechanism; but as to this part very different offices, and all of them material, were allotted, it has been intricately qualified for them all. Thus, upon the whole, we see an admirable disposition in the semen, and in the surface of the vagina, to facilitate and promote the action of the absorbent vessels.

Though the absorbent system has not been traced with the same minuteness and success which have followed the investigation of the sanguiferous system, it is however known to be very general and very powerful, and it is remarkably so in the cavity of the pelvis. How, otherwise, is that effusion which is constantly going on, in order to lubricate the whole genital system in the female, and to prevent the coalescence or concretion of its sides, resumed? In those unfortunate females whose menses have taken place, but in whom likewise the expulsion of them has been prevented by the unruptured hymen, or by unnatural membranes blocking up the passage, much of the blood has always been reformed; and in those whose disease has existed long, and where the thick parts of the blood have begun to be broken down, the colluvies have been reformed, and a train of symptoms induced, not to be accounted for by the mere turgidity which this obstruction occasioned. The infection and progress of syphilis, or confirmed lues, not only establish the certainty of a very rapid and powerful absorption in the vagina, but also exhibit the power and influence of the irregularities of its surface. It is surely very evident, that the chief application of the venereal virus, whether in gonorrhœa or syphilis, but especially in gonorrhœa, must be near the farther extremity of the vagina, though there can be no doubt but the ulcerated glans
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may often affect the exterior parts by its introduction; but in a confirmed lues, the fundus of the vagina is rarely the seat of ulcer, and it is never affected in gonorrhœa. Here the surface of the vagina being mostly smooth, the poison runs downwards, till, falling upon the rugæ, it is there intercepted and retarded. Here then the poison is multiplied, and leisurely applied to the mouths of the lymphatics, through which it is carried into the blood; where, assimilating together, it contaminates the whole mass. Though the progress of the syphilitic poison is not always thus regular, the variations do not affect this opinion. When the lymphatics, and their glands, are vigorous and easily permeable; when the application of the venereal virus is within the nymphæ; and when it is sufficiently active, the first symptoms of disease arise from general contamination; and was this poison always very mild, and taken up by the absorbents within the nymphæ, there is no doubt but the whole mass would almost always be diseased, without much chance of ulcer or preceding bubo. But there are many circumstances which tend to retard the speedy absorption of syphilitic virus, even when it is extremely active; and, among these, the inflammation which in general it must induce is not perhaps the least considerable; but these cannot affect the absorption of the seminal fluid of the male. The syphilitic virus too, may, from the laxity and lubricity of the vagina, (a circumstance very general in immodest women,) not only escape absorption, but may be carried outwards, to exercise its energy on the external parts. And it is from these reasons partly, that immodest women are so little disposed to conception, and that modest women, when subjected to venereal infection, generally experience the more latent and violent species of this disease. And as a greater surface of absorbents is exposed in the female to the contaminating influence of the diseased male organ, and as the greatest part of the female genital system has a much

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readier intercourse with the blood than through the inguinal glands, we meet with this species of syphilis much oftener in women than in men. The cure of syphilis, too, by specific remedies introduced into the vagina, fully demonstrates the strength and activity of the lymphatics in this canal. Is there then a ready and established communication, for disease and for its remedies, between the vagina and the general circulating system of the blood, while a mild fluid, yet possessed of activity infinitely beyond that of any poison, and created for the highest and best of purposes, is not permitted to traverse the same channels? Many other corroborating circumstances, both in fact and in analogy, might be adduced here, were not these arguments in themselves conclusive.

In a due state of health there is what may be called an intestine motion in the blood, occasioning and promoting its commixture, as well as its separation. In all general diseases, and even in many which are called local, this intestine commotion is heightened, diminished, or deranged; and in the exanthematous or eruptive disorders, it must be remarkably so. In syphilis, though this disease is not directly exanthematous, there must be excessive disturbance, and certain depravation prevailing throughout the whole system, before such complete destruction can be brought upon it. In these cases of disease--where vehement infection, with its fatal consequences, is overturning all before it--we have always found, that milder infections could make no impression. Hence the practitioner never hesitates to ingraft the small-pox, though the patient may have already received the disease, either by natural contagion or by prior inoculation: hence a milder disease is often removed by a severer one; hence slow consumption is always retarded, and often overcome, by fecundation; and hence fecundation itself, as the feeble stimulus, is often prevented by the anticipating disturbance of syphilis, or of similar diseases vehemently pre-
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occupying the circulating system. It is this anticipation, this prior possession, and change in the circulating blood, which reasonably and emphatically accounts for the want of influence in the human semen upon the female after impregnation has fully taken place, or while the mother is providing milk. And we might account for the production of twins, triplets, and those rare instances of more numerous progeny, from the same circumstances. One, two, or more, ova may indeed be so ripe as to meet completely the fecundating impulse of the male semen at one time; and it is perhaps more strange that the different foetuses should be matured and expelled about the same time, than if a greater period intervened between the expulsion of each; and might not a second intercourse of the sexes be successful, when the female circulating mass was not fully pre-occupied by the influence of the first? But the extent and influence of prior infection, or impregnation of the blood, has been better observed in the venereal than in any other disease or natural occurrence. Women whose general system is vitiated by the syphilitic virus, are always incapable of conception; or if the vitiation is not complete, but in a slight degree, an imperfect fecundation may take place; but its product fails not to demonstrate the want of energy, and the unqualified state of the mother, from whence it drew its principal arrangement. These ideas are corroborated by the mode of cure adopted in the circumstances we have been describing, and by the general effects of it.

Thus we have endeavoured, and we hope with success, to establish the truth of a strong power of absorption in the genital system of the female, originating in the vagina; and a disposition in the whole mass of blood, to be affected according to the properties of what may be mingled with it. And as, from the present state of anatomical knowledge, we have no right to suspect any other mode than this of absorption, by
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which the unrejected and finer parts of the semen can in any shape, and with any effect, be determined towards the ovaria, let us see how this can be farther ascertained by what we may suppose to be the effect of the absorbed semen, and the future appearances of impregnation.

In human creatures the evolution of all their parts is gradual, and the work of time. From the moment in which the ovarian nucleus receives the vivifying impulse from the semen, till the period of puberty; from the dawn of its existence, to the completion of its figure and its powers; its alterations are so many, and so varied, that our idea of the germ is not recognisable in that of the infant, and our idea of the infant again is lost in that of the perfect animal. A gelatinous particle, without necessary form and texture, becomes a stupendous fabric, so intricate and elaborate, though at the same time perfect and complete, that human ingenuity and reason have toiled almost fruitlessly for thousands of years in investigating the progress. It has indeed been averred by some, that all the different organs of the animal in its complete state are original and distinct in the embryo, and are only unfolded and rendered more evident by its increase. This surely is not the case. The animal is certainly endowed with the power of completing itself; and can, from inorganized parts, produce an organized structure. The parts are only evolved and perfected as they become useful in the different stages; and the evolution of many of them can be prevented without the destruction of life, or excessive prejudice to those already evolved. If the different organs, or rather principle, are at first perfect, why are those effects which depend upon them not perfect also? Why is the state of infancy a state of idiotism? why is the temper of youth capricious and flexible? and why are the temper and passions of the adult but barely discernible in the preceding stages?

As we are of opinion then, that the different organs are matured only as they become requisite and necessary; consequently, we believe the evolutions of the generative organs in both sexes must be among the last efforts of the increase and completion of the body. This evolution could not have taken place earlier. If it had, the mind must have been affected by those impulses which announce the maturation of these organs, by which we know the mind, body, and soul, are connected. In the male, the foundation and powers of maturation of that strength, and of those more rational qualities which belong to him, are laid to ripen with puberty: hence communication with the female, before these are finally arranged and secured, proves inefficient, and entails upon him debility both of body and mind. The same thing holds, as far as the same ends are concerned, with respect to the female; and we cannot suppose that nature could be so idly eccentric, as to punish the female with a disposition or propensity to procreate, before the body was capable of undergoing the various disorders and dangers of pregnancy and parturition. For the same reasons, none of the ordinary organs of sense are qualified to receive or communicate distinct impressions, till the brain, the seat of the soul, as the heart is of life, has acquired those properties which must fit it for its arduous offices. It is only when the different organs of sense have been completely evolved, and all their parts sound and just, that the power of the mind is effectuated and established. This faculty, though it seems essentially different from reason, is no doubt the origin of it; for the extension of common sense, from memory, or rather from comparison, and what may be called the balance of the senses, constitutes what is called reason and judgment. While the organs are incomplete, from infancy, or from disease, their communication with the understanding is also incomplete. Those who have been born blind, or whose eyes have been destroyed

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in infancy, before they were become useful, have none of those ideas which depend upon the eye; it is the same with the deaf, and in all cases of ideas depending upon one sense: and we may add, the early castrated have no comprehension of, or propensity to, the gratifications of love. Do not these things shew-- and a thousand other circumstances might be adduced to strengthen the proof---that the mind acquires its powers only as the parts of the body are unfolded and confirmed; that the body is perfected only as the mind is qualified to receive its impressions; and that the parts of the body are perfected by one another?

During infancy and youth, strictly, the ovaria are simple inorganic masses, partaking of no more life than is barely sufficient to sustain them, and connect them with that energy and progress of constitution which are afterwards to unfold all their properties. At the period of puberty, thus denominated from the change which takes place in the genital system at this time of life, this progress and developement of the ovaria is finished by nature; and these bodies are generated, and completed within them, which will exist without impregnation by the male, but which this impregnation alone can finally mature and evolve. That these bodies are not generated at an earlier date, anatomy as well as reason, founded on the foregoing arguments, assure us; and, that the ova of all the fœtuses, which the female is afterwards to produce, are generated at that time, seems equally certain. Though this change in the ovaria is the most essential, the whole genital system also undergoes a very material change. The simple alterations of structure and dimensions in the different parts of this system, though they are necessary and subservient to generation and parturition, yet they are not so material, either in themselves, or to our purpose, as to require a minute description. This, however, is not the case with respect to the menses. It is chiefly with a view to the nutrition of the fœtus that

this extra-sanguification in the female is provided by nature; which is determined to the genital system in the same manner as the other fluids are determined to other outlets; but, as the continued drilling off of this extra blood would be exceedingly inconvenient and disgusting, nature has prepared, as it were, a cistern for its reception. What may be sufficient to bring on the hæmorrhage, however, is only accumulated; and the general redundancy, induced by the obstruction and accumulation, subsides gradually as the hæmorrhage goes on. This is the manner of menstruation in the unimpregnated female, and these are the reasons why it assumes a periodical form. In the impregnated female again, the preparation of extra blood still continues, but its consumption becomes very different. By the extension of the uterus, and by the waste occasioned by the nourishment of the fœtus and its involucra, the surcharge or extra preparation of blood is nearly balanced, or is taken up as it is prepared; and hence the periodical efforts are almost lost. In the first months of pregnancy, however, the uterine system is not always able to consume the surcharge of blood, and thereby take off the periodical effort; and hence it is that the loss of the fœtus happens most generally in the early months, and at the usual period of the menses, unless some accident has supervened. And it is nearly from the same reasons that miscarriage is so often to be apprehended in the latter months of pregnancy, and that the fœtus is afterwards expelled from the womb. When the fœtus has acquired all that bulk and strength which the capacity and powers of the uterus can confer, and when a change of circulation and mode of life becomes necessary to it, the uterus and fœtus become plethoric; a general accumulation succeeds; and the periodical efforts of the menses return. During the middle months of pregnancy the fœtus is in a state of rapid growth, and is capable of consuming all the blood which the mother can furnish; but there is nei-
ther

ther room nor waste, in the latter months, for the blood which the mother is constantly pouring in; and hence arises that plethora, both in mother and child, which is to instigate the effort of parturition, which occasions the effusion after parturition, and which is to supply the extended circulation of the born child.

But, besides the utility of menstruation to the fœtus, there is a very evident connection between it and impregnation. To speak of it as a proof of the ripened qualifications of the female, is to say nothing; its immediate action is essential to conception. In the human female, it is well known, that coition is almost only successful immediately after this evacuation has subsided. Who will reconcile this---and it is no modern and groundless observation---to the consequence which has been ascribed to turgidity and tension, which we have already adverted to? Almost every woman who has frequently undergone pregnancy, and who has attended judiciously to the phænomena of that situation, calculates from the last cessation of the menses. At this time, or rather very soon after, the plethoric tumult of the general system is completely subsided, and the absorbed semen gets quiet and unanticipated possession of the circulating blood; and at the same time the gradually-returning plethora promotes its action, and perhaps its determination to the ovaria. When the menses are interrupted, or profuse and frequent, impregnation seldom takes place; and it admits not of a doubt, that when the determination of this blood is towards the mammæ, in the form of milk, coition is unsuccessful; and as soon as its determination to the uterine system is restored, other things being favourable, copulation succeeds. We may add as a known fact, that continuing to give suck after the usual period, will occupy the plethora, and prevent its determination, in the form of blood, to the uterine system. It is an additional reproach to the grossness of human nature, that this practice hath too often been put in execution, in
order

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order to obviate conception. Sometimes there is reason to believe, that conception has taken place while the plethoric determination to the breasts continued. I am rather disposed to believe, that in such cases its return to the uterine system was recommenced; for about the same time the milk generally loses its alimentary qualities, and gradually dwindles away.

But we have said enough to describe and substantiate those parts of the female, which puberty has prepared for generation. We shall now consider its operation on the male. It need not be repeated, that the seminal fluid is an exceedingly penetrating and active fluid. Its effects, after it is generated, even upon the male, demonstrate its activity and influence, far beyond the precincts wherein we believe it to be accumulated. After puberty, the secretion of it, during even indifferent health, is continually going on; and those collections of it in its reservoirs, which are not thrown out by venereal exercise, or by other means less decent, are resorbed and mingled with the general mass. What is actually resorbed about the period of puberty before the system has been habituated to it, or saturated with it, produces very curious and remarkable effects over the whole body. The flesh and skin, from being tender, delicate, and irritable, become coarse and firm; the body in general loses its succulency; and a new existence seems to take place. The voice, a proof of the tension and rigidity of the muscular fibre, losing its tenderness and inequalities, becomes ungratefully harsh; and the mind itself, actuated by the progress of the body, and forgetting all its former inclinations and attachments, acquires distinctly new propensities and passions. These changes are not entirely the effect of ordinarily progressive age and strength; neither are they promoted by intercourse with the world; for castration will anticipate them, and premature venery, or even gradual familiarity, and early onanism, will diminish them. Boys who have been subjected to castration
never

never acquire either that strength of body or capacity of mind which dignifies the complete male; and the same cruel and unnatural operation performed on brute animals diminishes their bodily strength, their courage, and liberty, and the fierceness of their temper.

If such are the effects of the feminal fluid when reformed by the male, how powerful must it be when suddenly mingled, and most probably in greater quantity, with the circulating fluids of the attracting female! Coition, or rather the absorption of the feminal fluid of the male by the female, even when not succeeded by impregnation, induces an alteration very general over the female system. The local influence of which may be inferred from the general change which it is capable of inducing during complete health; from the relief which it effectuates in many species of disease; and from the general vivacity and cheerfulness diffused over the whole animal frame. It would be prolix to go over every disease which will warrant these opinions; yet in the eye of common observation, the fallow and inanimate female, by coition, often becomes plump and robust, and beautiful and active; while the widow, or married woman, deprived of commerce with her husband, gradually returns to the imperfections and peculiarities of single life; and that the ancient virgin, all her life deprived of this animating effluvia, is generally consumed with infirmity, ill-temper, or disease. It is well known, too, that the want of coition at the time of life when nature seems to require it, induces many disorders in females; and that the use of it removes these, and even other diseases. Chlorosis or the whites almost always attack females immediately after puberty; and, even when the violence of its symptoms have not been discerned till a later period, its origin can always be traced back to that time. When the human system is completely evolved, and all its parts have acquired their full growth, a balance is produced between the circulating and solid systems; though, from the ideas

we have suggested concerning the menses, this balance in the female cannot strictly be called complete. It is only complete in her when in perfect health, and in an impregnated state; at other times, the catamenia, as preponderating against the powers of the solid system, in proportion to the degree of their period, disturb the equilibrium, and thereby more or less induce a state inconsistent with perfect health. But when the propelling power of growth has ceased before the solids, either from actual disease, or want of uniformity in either period, or accession with respect to the progress of the circulating system, have acquired their proper vigour and tone, and when the catamenia has assumed its destination before it is accompanied by the general as well as local energy which is requisite to expel it, an universal want of balance comes on; the blood loses its stimulating influence on the vitiated solids, and these, in their turn, act feebly on the distempered blood. Accordingly, in the cure of this disease, no matter whether adopted from particular theories or from experience, medicines are directed to restore vigour to the solids, and consistence and stimulus to the circulating mass. Nature proceeds in the same manner; and the beneficial effects of coition in the cure of this disease have been too material to escape observation. It may be alledged, that these effects depend entirely upon local influence; and that even voluptuous gratification, by quieting the turbulence of passion, is of consequence in the cure. We shall not say that these things are unavailing; for it appears that the relief obtained is chiefly owing to the increased intestine motion and consequent stimulus, communicated to the blood by the absorbed semen, whereby the solids themselves are ultimately restored; and we are the more confirmed in this opinion, because all these fortunate effects attend, whether coition be succeeded by impregnation or not. Hysterics, and other diseases, would furnish us with similar explanations, and similar cures.

Let

Let us now advance a little nearer our object. It is beyond a doubt, that, in whatever manner the semen acts upon the female, it does not act suddenly, notwithstanding the general assertions of many authors. However productive coition may be, the fecundated product of the ovaria is not immediately disengaged. We dare not avouch this fact from observations made on the human subject, because such observations never have been attempted, nor ever can with the smallest probability of success: but the dissection of brutes, by the most eminent anatomists, with a direct view to the elucidation of this fact, ascertains it as far as such evidence can be admitted. In the dissection of small animals by De Graaff, he found no discernible alteration in the uterus during the first forty hours after coition, but a gradual change was perceivable in the ovaria; and what he supposed the ripened origin of the future animal, at the end of that time, losing its transparency, became opaque and ruddy. After that time, the fimbriæ were found closely applied to the ovaria; the cavities from whence the ova had been expressed were discernible; and about the third day the ova were discovered in the uterus. In large animals, and in those whose time of uterine gestation was longer, it was found that the progress which we have been describing was proportionably slower. The same experiments have been made by different anatomists, and perhaps with very different views; and, though they have not always been managed with the same judgment and dexterity, yet all of them more or less confirm the idea that there is a very considerable lapse of time intervening between productive copulation and the expulsion of the ovum from the ovaria. But if this is the case with animals which soon arrive at puberty, and which, like human creatures, copulate not perfectly before puberty,---whose lives are short, and progress in equal periods of time more rapid than those in man,---by parity of reason, it must happen, that in

women the period between impregnation and the expulsion of the fecundated product of the ovaria must be considerably greater than what has been observed to take place in these animals. If all this is true---how are we to suppose nature to be employed during this interval? We believe it is during this period that the whole female constitution is labouring under the fecundating influence of the seminal fluid taken into the blood by the absorbents; while the ovaria are largely participating, and their product ripening, by means of the general stimulating process. And the same process which matures the ovum tends to facilitate its exclusion. The ovaria, as well as their product, are at this time enlarged, and other changes, subject to the examination of our senses, induced. It is no proof against the reality of this general alteration in the circumstances of the circulating system, and consequent revolution in the ovaria, that the whole is accomplished with but little visible disturbance, either local or universal. In other cases of material alteration in the mass of blood, equal quietness and obscurity prevail. In scrophulous or scorbutic taints; in the inoculated small pox, or when they are produced by contagion; the poison silently and slowly diffuses itself throughout the whole mass, and a highly morbid state is imperceptibly induced. Thus, an active and insinuating poison intimately mixes itself with all the containing, perhaps, as well as contained, parts, perverts their natures, and is ready to fall upon and destroy the very powers of life, before one symptom of its action or of its influence has been discerned. It is the same in a confirmed lues, and it is even more remarkable in the hydrophobia consequent on the bite of a mad dog; and the whole round of contagious diseases have the same unalarming, yet certain, progress and termination.

That the final influence of this elaborate process should be determined particularly, and at all times, to the ovaria, is no way marvellous. To qualify the
 ovaria

ovaria for this, they are supplied with a congeries of blood-vessels and nerves, at puberty larger and more numerous than what is allotted to any other part of similar magnitude. Were the ovaria merely a receptacle for the ova, which the venereal orgasm, communicated by the nerves, or by the impulsion of the applied semen, was to lacerate; what use would there be for so intricate and extensive an arrangement of blood-vessels and nerves? But we may farther remark, that every distinct process in the human body, either during health or disease, tends to one particular and distinct purpose. The kidneys do not secrete bile, nor does the liver strain off the useless or hurtful parts of the blood which are destined to pass off by the emulgents; neither do the salivary and bronchial glands promiscuously pour out mucus or saliva; the variolous virus does not produce a morbillous eruption, syphilitic caries, or scrophulous ulcer; why then should the fecundated blood unconcernedly and promiscuously determine its energy to the skin, the lymphatics, or the substance of the bones? We know none of the operations in the human body, destined for the ordinary purposes of life and health, or for the removal of disease, but in a greater or less degree involve the machinery of the whole system. A single mouthful of food, while it is prepared, purified, and applied to its ultimate purposes, is subjected to the action of all the known parts of the body, and without doubt to all those parts the properties of which we are unacquainted with; a draught of cold water spreads its influence almost instantaneously from one extremity to the other; the slightest wound disturbs even the remotest parts, and is followed, not unfrequently, with the most unhappy effects; an almost invisible quantity of poison sets the whole frame in torture, and all the active powers of the body instinctively exert themselves to solicit its expulsion:---Can we distinguish these things, and admire them, and then suppose that the most material operation of the human body---the renovation of itself,

is to be accomplished in a corner, and with infinitely less formality and solemnity than a spittle is cast upon the wind? The evident means are sufficiently degraded; we need not exert our ingenuity to degrade them farther.

It is during this interval, between productive coition and the exclusion of the ovum from the ovaria, that likeness, hereditary diseases, and the like, are communicated and acquired. Instead of that influence which the imagination of the mother is supposed to possess over the form of the child, might we not suspect, that the seminal fluid of the male, co-operating, during this interval, with the influence of the female upon the ovum, instigated a likeness, according to the influence of the male and female tinctures, in the united principles? It is during this period only that the diseases of the male can be communicated to the child; and, if we admit not of this interval and general operation of the seminal fluid, we cannot see how they can be communicated, though those of the mother may be communicated then or at a much later period, considering how the child is nourished while it is in the uterus and at the breast. It may be urged against this early and effectual acquisition of likeness, that the foetus does not acquire even the division of its largest members till long after its exclusion from the ovaria: but then we are confident, that, as the foetus takes all its form and other properties from the active subtilty of these blended tinctures, we cannot see any reason why it should not possess this hereditary faculty, in common with the rest. If likeness depends upon the imagination of the female, how happens it that the children of those whose profligate manners render the father uncertain, and whose affections cease with the instant of libidinous gratification, are as frequently distinguishable by their likeness as those children who have been born under none of those misfortunes? If the features are not planted during this period, and if imagination be not idle or useless, how was the six-fingered family, mentioned

tioned by Maupertuis, continued? When a female of that family married a man who had only the usual number of fingers, the deformity of her family became uncertain, or ceased; and we must suppose her imagination could not have been inactive or diminished, whether alarmed by the fear of continuing a deformed race, or instigated by the vanity of transmitting so remarkable a peculiarity. Was imagination, in a pregnant woman, so powerful as many have endeavoured to represent it, the mother, profligate at heart, though not actually wicked, would always betray the apostacy of her affections; and even a virtuous woman might divulge that she had looked with as much eagerness at a handsome stranger, as she had looked at the aquiline nose, or other prominent feature, of her husband.

But admitting that the feminal fluid of every male possesses some kind of influence peculiar to that male, and connected with his form, as well as his constitution; in the same, or in some similar manner, it contains, notwithstanding the elaborateness of its preparation, the stamina of diseases, some of which often lie longer dormant than even the features of individuals; that the ova are as peculiarly constructed, by the constitution of the female, as any other parts which depend upon gradual and solitary evolution; and that these operating upon each other by the intervention of the general system of the female, may, according to the power or prevalence of either, affect the features and figure of the incipient animal, or rather the inorganized mass from which the features and figure of the animal are afterwards to be evolved: admitting all these things, will national or even more extensive similitude corroborate the opinion?

We shall have occasion to remark, that the preservation and continuation of the particular species appears to proceed from that parent, who, in the act of procreation, has discovered most strength and vigour; and this is commonly the father. A young negro
woman

woman in Virginia, after having brought forth for the first time a black child, was delivered a second time of twins ; one of them, a boy, was black, and the other, who was a girl, was a mulatto. As the boy grew up, he retained his short hair which was naturally frizzled, and had a resemblance to wool; other marks plainly shewed that he was a true negro, and in every respect like the black father who had begotten him. The girl, on the other hand, was tolerably white; she had blue eyes, long black hair, without any natural curl; in short, she had a great resemblance to the overseer of the plantation, whom the negro husband suspected of cohabiting with his wife. Becoming pregnant a third time, she was delivered of three children, two of them mulattoes, and the other a perfect negro. Shall we ascribe this to the effect of imagination? Such an explanation is rejected by the philosopher as absurd, and contrary to every law of nature. We can account for the third delivery, therefore, only by admitting the cohabitation of two fathers of different races, and then a superfoetation.

While men continue in the same climate, and even in the same district, an uniform peculiarity of features and figure prevails among them, little affected by all those changes which improve or degrade the mind; but when they migrate, or when they are corrupted by the migration of others, this national distinction in time is lost, though in the latter case it seems to be recoverable, unless the cause of change be continued. The beautiful form and features of the ancient Greeks are at this day discernible in their descendants, though they are debased by intercourse with strangers, and by forms of government ultimately affecting their constitutions; the descendants of the few who by chance or design have been obliged to settle among the ugly tribes in the extremities of the north, have, by their intercourse with these tribes, and by necessarily accommodating themselves to the same modes of life, besides
other

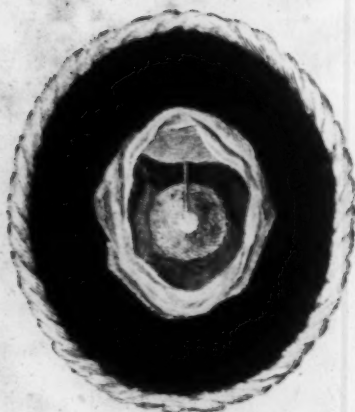
other circumstances, become almost equally ugly ; and the Jew himself, though he abhors to mingle with a different nation, and though his mode of life is nearly the same in all climates, yet the settlement of his ancestors in any one particular climate for some centuries will very sensibly impair the characteristic features of his people. As equally in point, and less liable to question, we may mention the following similar observations. A Scotchman, an Englishman, a Frenchman, or a Dutchman, may, even without their peculiarities of dress, be almost always distinguished in their very pictures ; the sturdy and generous Briton, notwithstanding the shortness of the period, and the uninterrupted intercourse, is traced with uncertainty in the effeminate and cruel Virginian ; and the negroes in North America, whose families have continued since the first importation of these unhappy creatures, and whose modes of living, exclusive of their slavery, are not materially changed, are much less remarkable for the flat nose, big lips, ugly legs, and long heels, than their ancestors were, or than those who are directly imported from the same original nation. From these observations it seems allowable to infer, that though climate, manners, occupation, or imitation, cannot materially affect the form or features of the existing animal ; yet these circumstances, becoming the lot of a series of animals, may, by inducing a change in the general mass both of the male and female, be the remote cause of a change in their product.

After what has been premised, it seems rational to conclude, that the prolific fluid, in coition, is neither carried through the Fallopian tubes, nor protruded through the aperture of the uterus to the ovaria ; but that it is taken up by the absorbent vessels, and conveyed into the sanguiferous system ; where indeed every active principle that can possibly affect the human constitution is also conveyed. That, by circulating through the blood, it is, by its natural impulse and the additional stimulus acquired from the mother, forced through the
corresponding

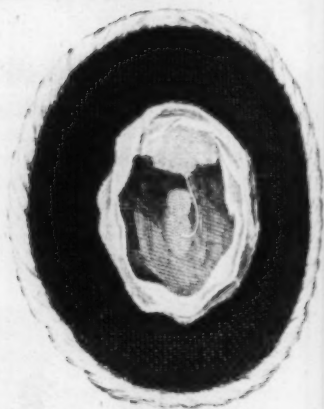
corresponding vessels into the ovaria; where, if it finds one or more of the ova in a state fit or ripe for impregnation, conception takes place accordingly; and either one or more are impregnated, as the maturated state of the ovaria might happen to be. But if none of the ova or eggs are in a state sufficiently mature, or chance to be injured by any offending humours, by debility, or disease, in either of these cases impregnation is frustrated, just the same as happens to an addled egg, or to a damaged grain of corn thrown into the earth.

On the other hand, if the male organ be deficient in vigour, or the semen be defective in quantity, consistency, or active power, it then fails of stimulating the female fluid, and is incapable of influencing impregnation. In order therefore that the act of copulation should be productive, the male must unquestionably convey to the female an elaborate tincture, which possesses the essences of his whole system, as well mental as corporeal. In this act the utmost energy and powers of the mind, of the body, and of the soul, are intimately connected? and all contribute their particular influence to the seed; of which every father must be sensible, when he recollects the action of the heart, the seat of life---of the brain, the seat of the soul---and of the whole powers of the body, concentrated and impelled, as it were, through the genital system. That this liquor comprehends the active principles of body and soul, will not I think be doubted by those who give the foregoing arguments their proper weight; and that it conveys with it, more or less, the direct image of the parent, I take to be confirmed by the evidence of the scripture; where we are told that one absolute and unequivocal form was given to man, in the express image of the Deity. So that man, thus organized and commissioned, was doubtlessly to convey to future generations that divine image or signature which God had graciously stamped upon him. For this purpose the seed of man, or efficient principle of generation, must
be

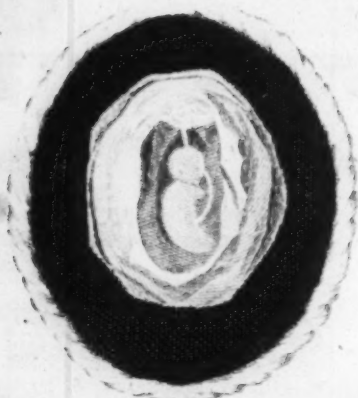




Conception.



First Month.



Second Month.



Third Month.



Fourth Month.

Formation of the Human Fetus.

Dodd del.

J. D. sculp.

Plate 1

Published as the Act directs, June 20th 1794.

be mingled with the vegetative fluid of the female; and, being attracted or taken up by the absorbent vessels from the uterine canal, passes immediately into the circulating system, where assimilating with the peculiar temperature of the mother, and acquiring new energy from the enlivening quality of the blood, it is directed through its natural channels to the ovaria, impregnating the germ by its active quality, and conveying to it the peculiarities it had derived from the constitutions, forms, tempers, and dispositions, of the parents, with the seeds of whatever diseases, impurities, or taints, were lurking in their blood. For from the blood and brain is the male seed primarily elaborated, and into the female mass is this thrown and assimilated, before impregnation can possibly take place. In the course of six days, I conclude the united tinctures to have travelled through the whole circulating system---to have participated of the hereditary forms and peculiarities of the mother, and to have propelled the ovum or egg from its seat in the ovaria to a suspended situation in the womb, hanging by a minute thread, that afterwards becomes the umbilical vessel, or aperture through which nourishment and life is conveyed from the mother to the child. This first visible state of conception, which resembles the lucid appearance of a drop of water, tending to coagulation, is correctly shewn in the first figure of the annexed plate, precisely in the state it was extracted from the uterus of a female, who died on the sixth day after contact with the male, and is now to be seen, preserved in spirits, in Rackstrow's valuable Museum, in Fleet-street, London.

At the time the ovum, or rudiments of the embryo, descends into the womb, it is indeed very minute; but at the end of about thirty days, we may partly discover the first lineaments of the foetus, though small and imperfect, being then only about the size of a house fly. Two little vesicles appear in an almost transparent jelly; the largest of which is intended to become the

head of the foetus, and the other smaller one is destined for the trunk; but neither the limbs nor extremities are yet to be seen; the umbilical cord appears only as a minute thread, and the placenta, which only resembles a cloud above, has no ramifications, or appearances of blood-vessels. This state of the embryo is expressed in the second figure of the annexed plate.

Towards the end of the second month, the foetus is upwards of an inch in length, and the features of the face begin to be evolved. The nose appears like a small prominent line; and we are able to discover another line under it, which is destined for the separation of the lips. Two black points appear in the place of eyes, and two minute holes mark the formation of the ears. At the sides of the trunk, both above and below, we see four minute protuberances, which are the rudiments of the arms and legs. The veins of the placenta are also now partly visible; as may be seen in No. 3. of the annexed plate.

In the third month the human form may be decidedly ascertained; all the parts of the face can be distinguished; the shape of the body is clearly marked out; the haunches and the abdomen are elevated, and the hands and feet are plainly to be distinguished. The upper extremities are observed to encrease faster than the lower ones; and the separation of the fingers may be perceived before that of the toes. The veins of the placenta are now distended, and are seen to communicate with the umbilical tube. This state of gestation is faithfully delineated in No. 4. of the annexed engraving.

In the fourth month the foetus seems to be completed in all its parts, and is about four inches in magnitude. The fingers and toes, which at first coalesced, are now separated from each other, and the intestines appear, in all their windings and convolutions, like little threads. The veins of the placenta begin to be filled with blood,
and





Fifth Month



Sixth Month



Seventh Month



Eighth Month



Ninth Month

Formation of the Human Fœtus.

Plate II

W. Al. del.

J. D. sculp.

Published as the Act directs June 30th 1794.

and the umbilical cord is considerably enlarged; as may be seen in the fifth figure of the subjoined plate.

In the fifth month, the bodily conformation being perfected, and a complete circulation of the blood induced, the mother quickens. The foetus now assumes a more upright figure, which corresponds with the shape of the uterus. Its head is found more elevated, its lower extremities are more distended, its knees are drawn upwards, with its arms resting upon them. It now measures from seven to eight inches in length, and is described in the first figure of the *second* subjoined plate.

Towards the end of the sixth month, the foetus begins to vary its position in the womb, and will frequently be found to incline either to the right or to the left side of the mother. It will by this time be increased to nine or ten inches; and its usual posture after quickening may be seen in the second figure of the second annexed plate.

In the seventh month the child acquires strength and solidity, as may be demonstrated by those painful throws and twitchings which its mother feels from time to time; and it is now increased to eleven or twelve inches.

In the eighth month it generally measures from fourteen to sixteen inches: and in the ninth month, or towards the end of its full time, it is increased from eighteen to twenty-two inches, or more; when the head, by becoming specifically heavier than the other parts, is gradually impelled downwards, and, falling into the birth, brings on what is termed the pains of parturition, or natural labour. For the exact position of the child in the womb, during these last three months, as well as the former, see the corresponding figures in the two annexed engravings, the whole of which were correctly drawn from real foetuses, extracted from the wombs of different women, and are now preserved for the inspection of the curious, in Rackstrow's

Museum, to which I beg leave to refer the inquisitive reader.

The nourishment of the fœtus during all this time, is derived from the placenta, which is originally formed out of that part of the ovum which is next the fundus uteri. The remaining part of the ovum is covered by a membrane called *spongy chorion*; within which is another called *true chorion*, which includes a third, termed *amnios*. This contains a liquor, or watery fluid, in which the fœtus floats till the time of its birth. Before the child acquires a distinct and regular form, it is called *embryo*; but, from the time all its parts become visible, it takes and retains the name of *fœtus* till its birth. During the progress of impregnation, the uterus suffers considerable changes; but, though it enlarges as the ovum increases, yet, in regard to its contents, it is never full; for, in early gestation, these are confined to the fundus only; and, though the capacity of the womb increases, yet it is not mechanically stretched, for the thickness of its sides do not diminish; there is a proportional increase of the quantity of fluids, and therefore pretty much the same thickness remains as before impregnation. The gravid uterus or pregnant womb is of different sizes in different women, and must vary according to the bulk of the fœtus and involucra. The situation will also vary according to the increase of its contents, and the position of the body. For the first two or three months, the cavity of the fundus is triangular, as before impregnation; but, as the uterus stretches, it gradually acquires a more rounded form. In general, the uterus never rises directly upwards, but inclines a little obliquely, most commonly to the right side: its position is never, however, so oblique as to prove the sole cause either of preventing or retarding delivery; its increase of bulk does not seem to arise merely from distention, but to depend on the same cause and increase as the extension of the skin in a growing child. This is proved from
some

some late instances of extra-uterine foetuses, where the uterus, though there were no contents, was nearly of the same size, from the additional quantity of nourishment transmitted, as if the ovum had been contained within its cavity. The internal surface, which is generally pretty smooth, except where the placenta adheres, is lined with a tender efflorescence of the uterus, which, after delivery, appears as if torn, and is thrown off with the cleanings. This is the *membrana decidua* of Dr. Hunter; which he describes as a lamella from the inner surface of the uterus; though Signior Scarpa, with more probability, considers it as being composed of an inspissated coagulable lymph.

Though the uterus, from the moment of conception, is gradually distended, by which considerable changes are occasioned, it is very difficult to judge of pregnancy from appearances in the early months. For the first three months the os tincæ feels smooth and even, and its orifice as small as in the virgin state. When any difference can be perceived, about the fourth or fifth month, from the descent of the fundus through the pelvis, the tubercle or projecting part of the os tincæ will seem larger, and more expanded; but, after this period, it shortens, particularly at its fore-parts and sides, and its orifice or labia begin to separate, so as to have its conical appearance destroyed. The cervix, which in the early months is nearly shut, now begins to stretch and to be distended to the os tincæ; but, during the whole term of utero-gestation, the mouth of the uterus is strongly cemented with a ropy mucus, which lines it and the cervix, and begins to be discharged on the approach of labour. In the last week, when the cervix uteri is completely distended, the uterine orifice begins to form an elliptical tube, instead of a fissure, or to assume the appearance of a ring on a large globe; and often at this time, especially in pendulous bellies, disappears entirely, so as to be out of the reach of the finger in touching. Hence the os
uteri

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uteri is not in the direction of the axis of the womb, as has generally been supposed.

About the fourth or between the fourth and fifth month, the fundus uteri begins to rise above the pubes or brim of the pelvis, and its cervix to be distended nearly one third. In the fifth month the belly swells like a ball, with the skin tense, the fundus about half way between the pubes and navel, and the neck one half distended. After the sixth month the greatest part of the cervix uteri dilates, so as to make almost one cavity with the fundus. In the seventh month the fundus advances as far as the umbilicus. In the eighth it reaches mid-way between the navel and scrobiculus cordis; and in the ninth to the scrobiculus itself, the neck being then entirely distended, which, with the os tinæ, become the weakest part of the uterus. Thus at full time the uterus occupies all the umbilical and hypogastric regions; its shape is almost pyriform, that is, more rounded above than below, and having a stricture on that part which is surrounded by the brim of the pelvis. The appendages of the uterus suffer very little changes during pregnancy, except the ligamenta lata, which diminish in breadth as the uterus enlarges, and at full time are almost entirely obliterated.

There are many kinds of spurious gravidity, commonly known by the names of *false conception* and *moles*: the former of these is nothing more than the dissolution of the fœtus in the early months; the placenta is afterwards retained in the womb, and from the addition of coagula, or in consequence of disease, is excluded in an indurated or enlarged state; when it remains longer, and comes off in the form of a fleshy or schirrhous-like mass, without having any cavity in the centre, it is distinguished by the name of *mole*. Mere coagula of blood, retained in the uterus after delivery, or after immoderate floodings at any period of life, and squeezed, by the pressure of the uterus, into a fibrous or compact form, constitute another species of mole, that
more

more frequently occurs than any of the former. These, though they may assume the appearance of gravidity, are, generally, however, expelled spontaneously, and are seldom followed with dangerous consequences. But, when two or more of the ova descend into the uterus, attach themselves so near one another as to adhere in whole or in part, so as to form only one body, with membranes and water in common, this body will form a confused irregular mass, which is called a *monster*; and thus a monster may be either defective in its organic parts, or be supplied with a supernumerary set of parts derived from another ovum. This proceeds from a defect or accident in nature, which no human power can rectify or prevent.

The natural temperature of women differs in a very considerable degree from that of men, inasmuch as their blood and juices are determined to a peculiar and distinct purpose. The male, is *hot* and *dry*; the female, *cold* and *moist*. The action of the procreative tincture of man is of a heating and quickening faculty; that of the woman is of a cool and vegetative quality. As the sun heats, and gives prolific energy to the fruits of the earth, so man fecundates and gives life to the prolific tincture of the woman. Thus the female, as the microcosm, or epitome of the celestial system, possesses an inherent similitude with the* moon, vegetates and brings forth the fruit of her womb, and not only feels the influence and sympathy of that luminary in her monthly discharges, but in all the travail and vicissitudes of pregnancy. To the same source likewise we trace the cause, and decide the question, Whether the fruit of the womb be male or female? for, if the male seed be predominant, heat will abound,

* The celestial influence on the human frame, with the astonishing effects of occult and secondary causes, the prescience of futurity, and the calculations of nativities, by the motion and position of the stars, may be seen in my new edition of the OCCULT SCIENCES, now publishing in weekly numbers at only sixpence each, or in 2 vols. boards, price 1l. 12s. 6d.

and a male foetus will be generated; but, if the cooling moisture of the woman overcomes the masculine heat in the male seed, a female is then produced. The old and exploded notion, of this cause depending on the child's falling to the right or left side of the mother, is too absurd to weigh a moment on the mind of any reasonable enquirer.

We discover likewise that the male, being constituted of a warm temperature, is naturally subjected to those infirmities of body and mind, which result from the elements of fire and air; while those of the female are of a cold tendency, arising from the elements of water and earth. Of these four elements our gross or material part is formed, and by their due and proper commixture in the constitution, or circulating mass, are life and health established; whilst, on the contrary, by their discordant, defective, or predominant, power, disease and death are produced. Now the male abounding in heat, and the female in moisture, is the reason why many disorders, incident to man, are alleviated by contact with the woman; as those of the woman are by contact with the man; and hence also we discover the evident distinction between the male and female in their structure and design---in their bodily strength and vigour, which demands the utmost attention from themselves, and the tenderest care from their parents. Nor can we too often nor too earnestly caution parents and guardians against the evils of that absurd though fashionable stile of bringing up their children, particularly girls, by confining them almost entirely to their apartments, keeping them on poor low diet, and using artificial means to make them spare and delicate, which contribute more to their prejudice than all the incidental diseases to which they are otherwise subject. These refinements in a female education, besides destroying their ruddy complexion, (which is often the design of it,) relaxes their solids, impoverishes their blood, weakens their minds, and disorders
all

all the functions of their body, whereby they are often rendered incapable of conception, and denied the felicity of becoming mothers. On the contrary, it ought to be the study, as it certainly is the duty, of all that have girls under their care, to indulge them in every innocent diversion, and in every active exercise, that can give freedom to the limbs, or agility to the body; all of which have a natural tendency to exhilarate their spirits, to promote digestion, to stimulate their blood and juices, and, at the proper age, to bring on a free and easy discharge of the menstrual flux.

Though it be universally admitted, that this flux is absolutely necessary to nourish and support the foetus, and that without it human generation cannot be carried on, and that it is consequently and obviously peculiar to the female uterine system, yet it is curious to observe the various absurd and contradictory opinions some physicians have laboured to establish, merely, one would suppose, to bewilder the understanding, and subject delicate females still more to that erroneous or misguided treatment, by which their health, their life, and every earthly blessing, is too frequently involved.

Dr. Bohn, and Dr. Freind, insist that this flux is nothing more than a plenitude of the common mass of blood, which nature throws off only for relief against the too abundant quantity. Dr. Freind supposes, that this plenitude arises from a coacervation in the blood-vessels of a superfluity of aliment, which, he thinks, remains over and above what is expended by the ordinary ways; and that women have this plethora, and not men, because their bodies are more humid, and their vessels, especially the extremities of them, more tender, and their manner of living generally more inactive than that of men; and that these things, concurring, are the occasion that women do not perspire sufficiently to carry off the superfluous alimentary parts, till they be accumulated in such quantities as to distend the vessels, and force their way through the capillary

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arteries of the uterus. It is supposed to happen to women more than to the females of other species, which have the same parts, because of the erect posture of the former, and the vagina and other canals being perpendicular to the horizon; so that the pressure of the blood is directed towards their orifices: whereas, in brutes, they are parallel to the horizon, and the pressure wholly is on the sides of those vessels. The discharge, he thinks, happens in this part rather than in any other, as being favoured more by the structure of the vessels; the arteries being very numerous, and the veins sinous and winding, and therefore more apt to retard the impetus of the blood; and consequently, in a plethoric case, to occasion the rupture of the extremities of the vessels, which may last, till, by a sufficient discharge, the vessels are eased of their overload. To this he adds the consideration of the soft pulposus texture of the uterus, and the vast number of veins and arteries with which it is filled. Hence a healthy maid, being arrived at her growth, begins to prepare more nutriment than is required for the support of the body; which, as there is not to be any farther accretion, must of necessity fill the vessels, and especially those of the uterus and breasts, they being the least compressed. These will be dilated more than the others; whence, the lateral vascules evacuating their humour into the cavity of the uterus, it will be filled and extended. Hence a pain, heat, and heaviness, will be felt about the loins, pubes, &c. the vessels of the uterus, at the same time, will be so dilated as to emit blood in the cavity of the uterus, and its mouth will be lubricated and loosened, and blood issue out. As the quantity of blood is diminished, the vessels will be less pressed, and will contract themselves closer, so as again to retain the blood, and let pass the grosser part of the serum; till at length only the usual serum passes. Again, there are more humours prepared, which are more easily lodged

lodged in vessels once dilated; and hence the menses go and return at various periods in various persons.

This hypothesis is judiciously opposed by Dr. Drake, who maintains, that there is no such plenitude, or at least that it is not necessary to menstruation; arguing, that, if the menses were owing to a plethora so accumulated, the symptoms would arise gradually, and the heaviness, stiffness, and inactivity, necessary symptoms of a plethora, would be felt long before the periods were completed, and women would begin to be heavy and indisposed soon after evacuation, and the symptoms would increase daily; which is contrary to all experience, many women, who have them regularly and easily, having no warning, nor any other rule to prevent an indecent surprise than the measure of time; in which some, that have slipped, have been put to confusion and shifts no ways consistent with the notice a plethoric body would give. He adds, that even in those who are difficultly purged this way, the symptoms, though very vexatious and tedious, do not make such regular approaches as a gradual accumulation necessarily requires. If we consider what violent symptoms come on in an hour, we shall be extremely puzzled to find the mighty accession of matter, which should, in an hour or a day's time, make such great alterations. According to the hypothesis, the last hour contributed no more than the first; and of consequence, the alteration should not be greater in the one than in the other, setting aside the bare eruption.

There are others who give in to the doctrine of fermentation, and maintain the evacuation in those parts to be an effect of an effervescence or ebullition of the blood. This opinion has been maintained by Dr. Charleton, Bale, De Graaf, and Drake; the two first of whom suppose a ferment peculiar to the women, which produces this flux, and affects that part only, or at least principally. De Graaf, less particular in his notion, only supposes an effervescence of the blood,

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raised by some ferment, without assigning how it acts, or what it is. The sudden turgescence of the blood occasioned them all to think, that it arose from something till then extraneous to the blood, and led them to the parts principally affected to seek for an imaginary ferment, which no anatomical enquiry could ever shew, or find any receptacle for, nor any reasoning necessarily infer. Again, that heat, which frequently accompanies this turgescence, led them to think the case more than a plethora, and that there was some extraordinary intestine motion at that time.

Dr. Drake contends, that it is not only necessary there should be a ferment, but a receptacle also for this ferment; concluding, from the suddenness and violence of the symptoms, that a great quantity must be conveyed into the blood in a short time, and consequently that it must have been ready gathered in some receptacle, where, while it was lodged, its action was restrained. He pretends to ascertain the place both of the one and the other, making the gall-bladder to be the receptacle, and the bile the ferment. The liquor he thinks well adapted to raise a fermentation in the blood, when discharged into it in quantity; and, as it is contained in a receptacle that does not admit of a continual issue, it may be there reserved, till in a certain period of time the bladder becoming turgid and full, through the compression of the incumbent viscera, it emits the gall; which, by the way of the lacteals, insinuating itself into the blood, may raise that effervescence which occasions the aperture of the uterine arteries. To confirm this, he alledges, that persons of a bilious constitution have the menses either more plentifully, or more frequently, than others; and that distempers manifestly bilious are attended with symptoms resembling those of women labouring under difficult menstruation. But, if this argument be admitted, men would have the menses as well as women. To this however he answers, that men do not abound in bile so much as

women, the pores of the former being more open, and carrying off more of the serous part of the blood, which is the vehicle of all other humours, and consequently a greater part of each is discharged through them than in women, wherein the superfluity must either continue to circulate with the blood, or be gathered into proper receptacles, which is the case in the bile. The same reason he gives why menstruation should not be in brutes: the pores of these being manifestly more open than those of women, as appears from the quantity of hair which they bear, for the vegetation whereof a large cavity, and a wider aperture of the glands, is necessary, than where no such thing is produced: yet there is some difference between the males and females even among these, some of the latter having their menses, such as the orang outang, &c. as we shall shew, in the next volume of this work, though not so often, nor in the same quantity, as women. But without dwelling upon these abstract reasonings, the absurdity of which will be obvious to every person who turns to the foregoing system of human impregnation, we need only remark, that there are two critical periods in every woman's life that completely destroy their hypothesis. These are, that at the age of fourteen or fifteen, the menses begin to flow; but subside at the age of forty or fifty. At their commencement, we often find the difficulty, and consequent disease, arises from their *deficiency*; whereas, according to the foregoing doctrine, they would then *always* flow with the greatest freedom. At the period when they should cease, they are apt to come in such abundance as to bring on a flooding, which not only endangers, but too frequently destroys, life---a fatal consequence that could not possibly happen, were the above arguments true.

The first show of the catamenia, if it be natural, is an effort of nature justly considered as the sure sign of a procreating ability, and of complete puberty. When-
ever

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ever this season arrives, whether early or late, the constitution of every female undergoes a considerable change, and the greatest care and attention are then necessary, since the future health and happiness of every woman depend, in a great measure, upon her conduct at this period. It is the duty of mothers, and of those who are intrusted with the education of girls, to instruct them early in the conduct and management of themselves at this critical moment. False modesty, inattention, and ignorance of what is beneficial or hurtful at this time, are the sources of many diseases and misfortunes, which a very little attention might now prevent. Nor is care less necessary in the subsequent returns of this discharge. Taking improper food, violent agitations of the mind, or catching cold, is often sufficient to ruin the health, or to render the female for ever after incapable of procreation. The intention of nature also in returning this flux back into the habit, after child-bearing is over, is to nourish and preserve life, not to destroy it. Until the age of puberty, girls require this blood for the sustentation and nourishment of their bodies; when that is sufficiently established, it is applied to the purposes of nourishing the foetus, and of suckling the infant after it is born. When child-bearing ceases, and the eve of life comes on, this blood is returned back to comfort and preserve it; therefore, if women were but careful to observe a regular course before this flux returns upon them, they might not only escape the perils and dangers attendant on this period, but would lay the foundation of a settled state of health, and enjoy a sound constitution of body to extreme old age*.

* The *secret* infirmities both of men and women, in every situation and stage of life, with the complete anatomy of the sexes, and an elegant set of anatomical plates; with an easy, simple, and radical, cure for every complaint, may be seen at large in my complete edition of Culpeper's Family Physician, now publishing in weekly numbers, at only six-pence each, or complete, price one guinea plain, or two guineas coloured.

It

It is the activity of this extra-sanguification that occasions those heterogeneous particles, which, passing through the blood, produce nausea, and arise from the combining efforts of the masculine and feminine tinctures; from whence, according to the grossness of the procreative fluids at the time of conception, proceed vomiting, pains in the head and stomach, fainting, &c. occasioned by the jarring elements arising from the frequent disproportion in the heat and active principle of the constituent parts of the feminal fluid; which is not only attended with great debility and depression to the mother, in her whole nervous system, but often with hereditary diseases, and dreadful consequences to the infant offspring. Indeed so great has been the conflict of the male and female procreative tinctures for the mastery or predominant power, while passing through the circulating mass or habit of the mother, that the most curious and astonishing phenomena have, on many occasions, been observed to result from it. In a small village in Somersetshire, in the year 1759, a girl was born with the hair on her head of two remarkable distinct colours; the right side, from an exact parallel line which divided the skull into two equal parts, was almost black; but the left side, from the same line, was of a reddish yellow. As she grew up, the dark hair became of a jet black, exactly like that of her father; whilst the other became of a strong caroty red, precisely resembling that of her mother; and, after the age of puberty, the hair on the privities, and under the arm-pits, as well as on her arms and legs, was diversified in the same manner; that on the right side, all the way down, being black; whilst that on the left was entirely red. The young woman lived till the 28th year of her age, and was resorted to as a great curiosity.

Another well-known yet remarkable instance of this conflict of the male and female procreative tinctures at the time of conception, was the case of a man who a
few

few years since kept a public house in Tooley-street, Southwark. His father was a white man, belonging to one of the West-India packets; and his mother was a negro girl, whom he had taken a fancy to, and purchased, on the arrival of one of the Guinea slave-ships at the island of Jamaica. He brought her with him to London, and in the course of the ensuing year, she was delivered of a son, the whole right side of which was white like the father; but the whole of the left side was black like the mother. As he grew up, this visible distinction became more strongly marked; and, during the time he kept the above public-house in Tooley-street, he was resorted to by an immense concourse of people, who flocked there to spend their mite, in order to be satisfied that so great a curiosity really existed. The whole of his body appeared to be intersected by an exact parallel line, by which the efforts of conception seem to have united the male and female tinctures in precise equilibrio, without suffering them to intermix in coagula, or in impregnating and expelling the ovum from the ovaria, to its suspended state in the uterus. Hence the hair on the right side was long and brown, like that of the father; and half the face, neck, and body, on the right side, were white; while the corresponding part on the left side were black, like that of the mother, with half the hair on the head black and woolly, exactly like that of a true negro.

A still more curious and striking example of this astonishing effort in the male and female procreative fluids, is verified in the case of Mr. John Clark, of Prescot-street, Goodman's-fields. His father was a native of Africa, who, by dint of good fortune, had amassed a considerable sum of money, and settled in London. He married a remarkably healthy young woman, a native of Devonshire, who had been some time his servant. By her he had two sons and three daughters, who were mulattoes, except the eldest son, who was the first born, and the person above alluded to. From the

head

head to the navel, all round his body, he was remarkably fair, had a fine skin, handsome round features, light-brown hair, and sanguine complexion, like his mother; but from the navel downwards he was completely black, exactly like the father. At the age of thirty, he married a young lady of good family and fortune, but of a delicate constitution. For near three months he had the address to conceal this deformity of colour from the knowledge of his wife, by wearing flesh-coloured silk drawers and stockings, which he pretended were lined with flannel to keep off the rheumatism, with which he had been sorely afflicted, even to a degree that endangered his life, every time that he attempted to leave them off. It happened however, from some neglect of concealment before going to sleep, that the curiosity of his wife was strongly excited; and the opportunity proving favourable, it being quite day-light in the morning, and her husband fast asleep, she eagerly proceeded to satisfy her doubts. Gently turning down the bed-clothes, and removing the other impediments in the way of a complete inspection, she no sooner discovered the real state of things, than she shrieked out vehemently, and fainted away! The husband, thus suddenly awakened, beheld his wife in a fit, and saw with sorrow and regret the consequences of a discovery which entirely resulted from his own neglect. He immediately arose, called up the servants, and procured medical assistance with all convenient speed; but in vain---the sudden surprise, added to the mortification and terror of mind, had so powerful an effect, that the lady died in convulsions, about two months gone with child. I have often lamented that fortune did not throw me in the way at this critical juncture, for two reasons; in the first place I have the vanity to think I could have saved the patient's life; but, had I failed in that, I would have persuaded Mr. Clark, from motives of philosophical speculation, and for the improvement of medical science, to have suf-

ferred me to open the womb of this unfortunate lady, in order to extract the foetus; which, under the circumstances of the uncommon conformation of the father, might have enabled me to throw a new light on this very curious subject of occult enquiry, perhaps so as to have accounted more obviously for the jarring conflicts and struggling efforts of the masculine and feminine tinctures; to which alone we are to look for the formation of hermaphrodites, the production of monsters, &c.

We find many similar accounts, in different authors, of party-coloured people. Thus we are told, by Bufson and others, that copulation of a black man with a white woman hath often produced a pied or spotted race, living instances of which are to be found in both the Indies. A very remarkable case is that of Maria Herig, who was spotted all over the body, and covered with hair, like the leopard. She was born at Dackstull in Lorraine in 1770, and was exhibited in Paris in 1774. Both the skin and the hair were of a tan-colour; and besides these hairy spots, her stomach and belly were covered with longish hair, of a brown colour on one side, and lighter on the other.---Somewhat similar, and no less remarkable, was the porcupine man, who was born in Suffolk in 1710, and was exhibited in every principal town in England. The skin of his body was covered with excrescences like thorns or prickles; and about the thickness of pack-thread. His face, the palms of his hands, and the soles of his feet, were the only parts that were free from them. They were of a reddish brown, and had such a degree of hardness and elasticity, as to rattle when the hand was moved over the body. They were half an inch long in some parts, and shorter in others. They did not appear till two months after his birth; but, what is most extraordinary, they dropped off every winter, and were renewed in the spring. He had six children, all of whom, like their father, were covered with these excrescences.

Sympathy

Sympathy and antipathy most certainly operate very powerfully on females in the early state of pregnancy, and might, without doubt, have had a principal share in carrying off the above unhappy person, while no means were used to counteract their influence on the mass of blood. Sudden frights, longing and loathing, and all marks on the foetus, are obviously derived from this cause, and can only be corrected by giving energy and stimulus to the circulating system, whereby the functions both of body and mind are strengthened, and the nervous fluid fortified and protected against the sudden impression of external objects. It is admitted, by the most eminent practitioners, that the diseases of a pregnant state, as well as almost all others incident to the human frame, have their origin in the blood; for no longer than this vital stream is kept in due circulation, pure, and uncontaminated, can animal life be sustained, or the body be preserved in health and vigour.

From the express words of scripture, Levit. xvii. 11, 14. Deut. xii. 23. we are warranted to infer, that "*in the BLOOD is the LIFE*;" and there is not a doubt but the living principle of the blood constitutes the life of the body. The shocking case of Mr. Groundwater, who was most inhumanly murdered on the 23d of May last, by the convicts in Cumberland Fort, near Portsmouth, manifests the truth of this remark. The above unfortunate person was deputed to overlook the convicts in their working hours; when having occasion to reprimand two of them for misbehaviour, namely, Francis Jennison, and William Butterworth, who were under sentence of transportation for life, they fell upon the unhappy man with the iron shovels with which they were at work; and, having thrown him down, they struck the sharp edge of the shovel several times into his head, whereby the cranium was penetrated, and so large a fissure made, that part of the brains hung upon the spade, and the

residue fell out upon the ground, in the quantity of a double handful. They then struck down one of the shovels on his neck, with an evident design to sever the head from the body; but, striking against the bone, it had not the intended effect. Now it is a most extraordinary circumstance, attested by several witnesses on the trial of these inhuman wretches, who were convicted of the murder at the ensuing Winchester assizes, and executed on the 4th of August, 1794, that Mr. Groundwater lived eighteen hours after he had received the above grievous wounds, and after the whole of the brain had fallen out of the cavity of the skull. He was entirely speechless; but the action of the pulse was remarkably strong, and respiration visibly continued, during the whole of the eighteen hours above-mentioned. This was positively attested on the oath of Mr. Hill, the surgeon who attended him, and taken down as a most singular case, by Sir Nash Grose, who tried the prisoners. This fact therefore clearly decides the long-contested point among physiologists, whether the seat of life is in the heart, or in the brain? for it evidently shews that the life is in the blood, seated in its grand reservoir the heart, which if ever so slightly wounded or impaired, the circulation ceases, and death instantly follows. Of this opinion was the celebrated Hervey, as well as many of the ancient philosophers and physicians; and the late Mr. John Hunter declared himself to be of the same way of thinking. We find the blood unites living parts, in some circumstances, as certainly as the yet recent juices of the branch of one tree unite it with that of another. Were either of these fluids to be considered as extraneous or dead matters, they would act as stimuli, and no union would take place in the animal or vegetable kingdoms. This argument Mr. Hunter established by the following experiment. Having taken off the testicle from a living cock, he introduced it into the belly of a living hen. Many weeks afterwards, upon
injecting

injecting the liver of the hen, he injected the testicle of the cock likewise, which had come in contact with the liver, and adhered to it. In the nature of things, there is not a more intimate connection between life and a solid than between life and a fluid. For, although we are more accustomed to connect it with the one than the other, yet the only real difference which can be shewn between a solid and a fluid is, that the particles of the one are less moveable among themselves than those of the other. Besides, we often see the same body fluid in one case and solid in another. The blood will also become vascular like other living parts. Mr. Hunter affirms, that, after amputations, the coagula in the extremities of arteries form vessels, and may be injected by injecting these arteries; and he had a preparation by which he could demonstrate vessels rising from the centre of what had been only a coagulum of blood, and opening into a stream of circulating blood. If blood be taken from the arm, in the most intense cold which the human body can bear, it raises the thermometer to the same height as blood taken in the most sultry heat. This is a strong proof of the blood's being alive; for living bodies alone have the power of resisting great degrees both of heat and cold, and of maintaining in almost every situation, while in health, that temperature which we distinguish by the name of animal heat. Blood is likewise capable of being acted upon by a stimulus; for it coagulates from exposure, as certainly as the cavities of the abdomen and thorax inflame from the same cause. The more it is alive, that is, the more the animal is in health, it coagulates the sooner on exposure; and the more it has lost of its living principle, as in the case of violent inflammations, the less it is sensible to the stimulus produced from its being exposed, and it coagulates the later. We may likewise observe, that the blood preserves life in different parts of the body. When the nerves going to any part are tied or cut, the
part

part becomes paralytic, and loses all power of motion; but it does not mortify. If the artery be cut, the part dies, and mortification ensues. What keeps it alive in the first case? nothing but the living principle, which alone can keep it alive; and this phenomenon is inexplicable on any other supposition, than that the life is contained in the blood. Another argument is drawn by Mr. Hunter from a case of a fractured os humeri. A man was brought into St. George's Hospital for a simple fracture of the os humeri, or arm, and died about a month after the accident. As the bones had not united, Mr. Hunter injected the arm after death. He found that the cavity between the extremities of the bones was filled up with blood which had coagulated. This blood was become vascular, or full of vessels. In some places it was very much so. He does not maintain that all coagulated blood becomes vascular: and indeed the reason is obvious; for it is often thrown out and coagulated in parts where its becoming vascular could answer no end in the system: as, for example, in the cavities of aneurismal sacs. If it be supposed, that, in such cases as that just now mentioned, the vessels are not formed in the coagulum, but come from the neighbouring arteries, it is equally an argument that the blood is alive; for the substance into which vessels shoot must be so. The very idea, that such a quantity of dead matter as the whole mass of blood circulates in a living body, is absolutely absurd.

Those who have ventured to oppose this doctrine, and the evidence of scripture with it, consider the brain and nervous system as the fountain of life; and that, so far from receiving its life from the blood, the nervous system is capable of instantaneously changing the crasis of the blood, or any other animal fluid; and though the nervous system cannot continue its action for any length of time, if the action of the blood-vessels is suspended, yet the heart and blood-vessels cannot act for a single moment without the influence

of

of the nervous fluid. For this reason, say they, it is plain we must suppose the nervous system, and not the blood, to contain properly the life of the animal, and consequently to be the principal vital organ. The secretion of the vital fluid from the blood by means of the brain, is, by the supporters of this argument, denied. They say, that any fluid secreted from the blood must be aqueous, inelastic, and inactive; whereas the nervous fluid is full of vigour, elastic, and volatile in the highest degree. The great necessity for the circulation of the blood through all parts of the body, notwithstanding the presence of the nervous fluid in the same parts, they say is, because some degree of tension is necessary to be given to the fibres, in order to fit them for the influx of the nervous fluid; and this tension they receive from the repletion of the blood-vessels, which are every where dispersed along with the nerves.

To follow this opinion through every argument would prove tedious and unnecessary, as the following short observations will decide the matter absolutely against the patrons of the nervous system. In the first place, then, if we can prove the life of the human body to have been communicated from a fluid to the nervous system, the analogical argument will be very strongly in favour of the supposition that the case is so still. Now that the case was once so, is most evident; for the human body, as well as the body of every other living creature, in its first state, I have shewn to be a gelatinous mass, without muscles, nerves, or blood-vessels. Nevertheless, this gelatinous matter, even at that time, contained the nervous fluid. Of this there can be no doubt, because the nerves are formed out of it, and have their power originally from it; and what is remarkable, the brain is observed to be that part of the animal which is first formed. Of this gelatinous or procreative fluid we can give no further account, than that it is the nutritious matter from which the whole

whole body appears to be formed. At the original formation of man and other animals, therefore, the nutritious matter was made the substratum of the whole body, consisting of muscles, nerves, blood-vessels, &c. nay more, it was the immediate efficient cause of the nervous power itself. Again, in the formation of the embryo, we see a vital principle existing as it were at large, and forming to itself a kind of regulator to its own motions, or a habitation in which it chooses to reside, rather than to act at random in the fluid. This habitation, or regulator, is undoubtedly the nervous system; but at the same time, it is no less evident that a nutritious fluid is the immediate origin of these same nerves, and of that very nervous fluid. Now we know, that the fluid which in the womb nourishes the bodies of all embryo animals, is necessarily equivalent to the blood which nourishes the bodies of adult ones; and consequently, as soon as the blood became the only nutritious juice of the body, at the same time the nervous fluid took up its residence there, and from the blood diffused itself along the nerves, where it was regulated exactly according to the model originally formed in the embryo. Perhaps it may be said, that the vital power, when once it hath taken possession of the human or any other body, requires no addition or supply, but continues there in the same quantity from first to last. If we suppose the nervous power to be immaterial, this will indeed be the case, and there is an end of reasoning upon the subject; but, if we call this power a volatile and elastic fluid, it is plain that there will be more occasion for recruits to such a power than to any other fluid of the body, as its volatility and elasticity will promote its escape in great quantities through every pore of the body. It may perhaps be objected, that it is absurd to suppose the blood capable of putting matter in such a form as to direct its own motions in a particular way: but even of this we have a positive proof in the case of the electric fluid. For if any
quantity

quantity of this matter has a tendency to go from one place to another where it meets with difficulty, through the air for instance, it will throw small conducting substances before it, in order to facilitate its progress. Also, if a number of small and light conducting substances are laid between two metallic bodies, so as to form a circle, for example, a shock of electricity will destroy that circle, and place the small conducting substances nearer to a straight line between the two metals, as if the fluid knew there was a shorter passage, and resolved to take that, if it should have occasion to return. Lastly, it is universally allowed, that the brain is a secretory organ, made up of an infinite number of small glands, which have no other excretories than the medullary fibres and nerves. As a considerable quantity of blood is carried to the brain, and the minute arteries end in these small glands, it follows, that the nervous fluid must come from the blood. Now, there is no gland whatever, in the human or any other body, but will discharge the fluid it is appointed to secrete, in very considerable quantity, if its excretory be cut. Upon the cutting of a nerve, therefore, the fluid secreted by the brain ought to be discharged; but no such discharge is visible. A small quantity of glairy matter is indeed discharged from the large nerves; but this can be no other than the nutritious juice necessary for their support. This makes it plain, even to demonstration, that the fluid secreted in the brain is invisible in its nature; and, as we know the nervous fluid hath its residence in the brain, it is very probable, to use no stronger expression, that it is the peculiar province of the brain to secrete this fluid from the blood, and consequently that the blood originally contains the vital principle.

This fact being established, I shall now endeavour to describe the action of quickening, or mode by which life is communicated to the child in the womb, which usually takes place in the fifth month of pregnancy.

Opportunities, however, of dissecting the human gravid uterus at or near this critical juncture occurring but seldom, it is with great difficulty that a subject of this delicate and abstruse nature can be treated with perspicuity, and is the principal cause why it has not been attempted by former physiologists. I have already shewn, that the rudiments of the embryo put forth four membranes, viz. the placenta, the navel-string, the chorion, and amnios, which contains the fluid in which the fœtus floats. Until the period of quickening arrives, the embryo possesses only vegetative life, similar to that of a common plant; and its growth is nourished and preserved by the fluid in which it swims, until the nerves, veins, arteries, and vital organs, are entirely formed, and the circulation of its mother's blood is completed through them, which is conducted in the following manner.

The placenta is the medium by which the blood from the heart of the mother is communicated to that of the child; but to check its too rapid progress, which would overwhelm the tender vessels of the infant frame, the texture of the placenta is formed similar to that of a sponge, round like a cake, of considerable dimensions, and capable of great absorption, being chiefly made up of the ramifications of the umbilical arteries and vein, and partly of the extremities of the uterine vessels. The arteries of the uterus discharge their contents into the substance of this cake; and the veins of the placenta, receiving the blood either by a direct communication of vessels, or by absorption, at length form the umbilical vein; which passes on to the sinus of the vena porta, and from thence to the vena cava, and heart of the infant, by means of the *canalis venosus*, a communication that is closed up in the adult. But the circulation of the blood through the heart is not conducted in the fœtus as in the adult: in the latter, the blood is carried from the right auricle of the heart through the pulmonary artery, and is returned to the left

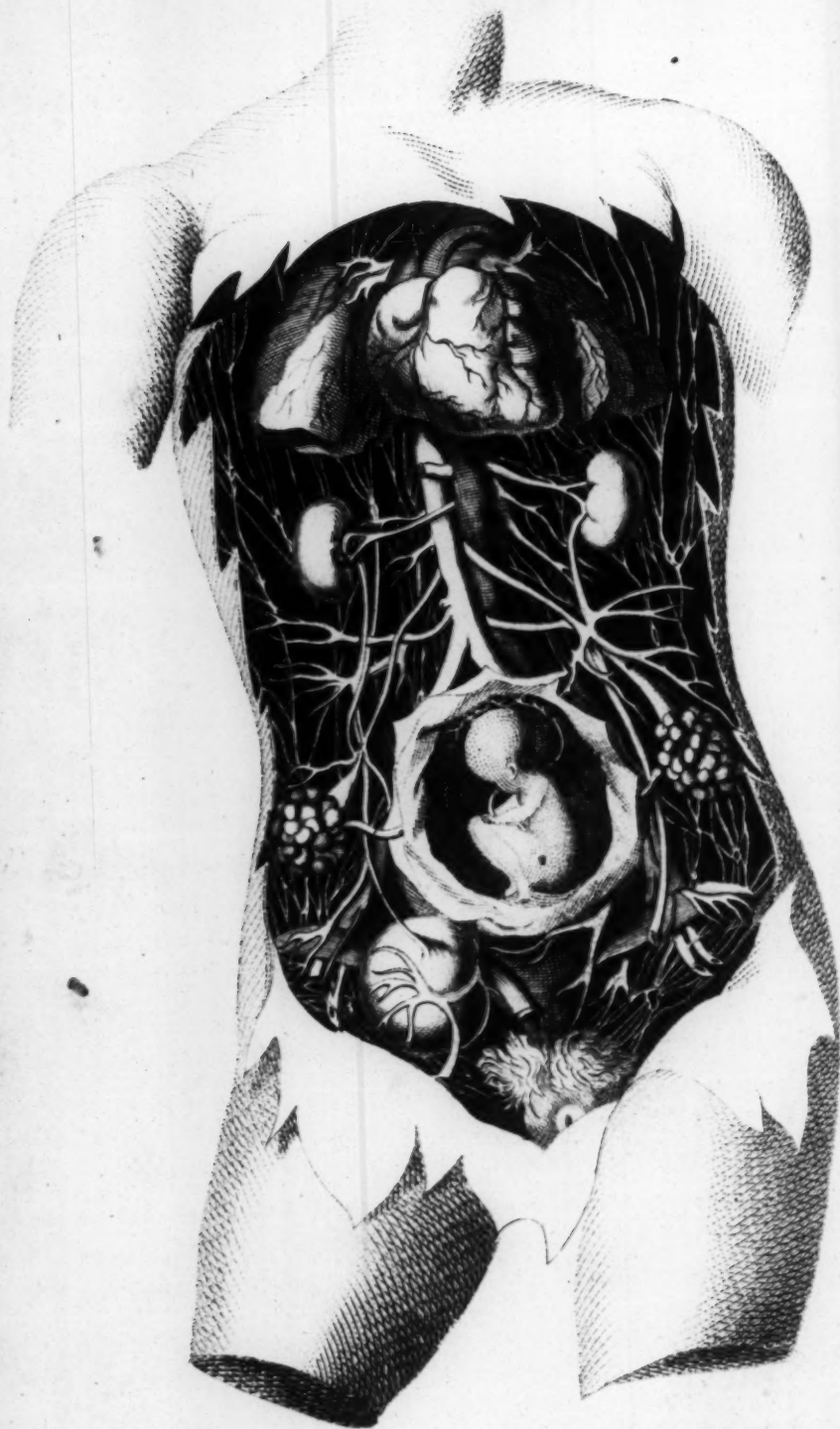
left auricle by the pulmonary vein; but a dilatation of the lungs is essential to the passage of the blood through the pulmonary vessels, and this dilatation cannot take place till after the child is born, and has respired. This deficiency is therefore supplied in the fœtus by an immedicate communication between the right and left auricle, through an oval opening, in the septum which divide the two auricles, called *foramen ovale*. The blood in the fœtus is likewise transmitted from the pulmonary artery to the aorta, by means of a duct called *canalis arteriosus*, which, like the *canalis venosus*, and *foramen ovale*, gradually closes after birth. The blood is returned again from the fœtus to the mother through two vessels called umbilical arteries, which arise from the iliacs. These two vessels, taking a winding course with the vein, form, with that and the membranes by which they are surrounded, what is called the umbilical chord. These arteries, after ramifying through the substance of the placenta, discharge their blood into the veins of the uterus, in the same manner as the uterine arteries discharge their blood into the branches of the umbilical vein. So that, after quickening, the blood of the mother is constantly passing in at one side of the placenta, and out again at the other, for sustaining the life of the child.

Now what we call the *action of quickening*, is that instantaneous, yet undescribable, motion, of the vital principle, which, the instant the fœtus has acquired a sufficient degree of animal heat, and is completely formed in all its parts, rushes like an electric shock, or flash of lightning, conducted by the sanguiferous and nervous fluids, from the heart and brain of the mother, to the heart and brain of the child. At this moment, the entire circulation begins; the infant fabric is completely set in motion; and the child becomes a living *soul*. As soon, therefore, as the circulation commences, the child starts into life; and the instant the circulation ceases, life ceases also. This *act of quickening* is there-

fore derived from the blood, and is so sensibly felt by the mother, that she often faints, and feels an internal depression of her animal and vital powers, which may be said, in some measure, to have departed from her. But the act of quickening does not take place in all women at the same period, nor always in the same woman at the same distance of time from her conception; nor is it governed by any given number of weeks or days after conception has taken place; but depends entirely on that instant of time, when the joint influence of animal heat, and an entire completion of the nerves, veins, arteries, and other parts and organs, of the fœtus, are fitted and ready to receive and support a due circulation of the blood and juices; for this, and this alone, is the source of quickening, and the beginning of animal life. Strong and healthy women will therefore quicken sooner than the weak and delicate, by reason that their procreative and stimulating powers are more robust, and can sooner contribute that portion of animal heat which is necessary to the entire completion of the fœtus in all its parts; and which will happen sooner or later, according to the health and strength of the pregnant woman, and her sufficiency of menstrual blood to support the demand. For this flux will be now wholly taken up by the new subject, until the hour of birth; after which it either renews its monthly evacuation, as being redundant in the mother; or, if she suckles the child, it is then determined to the mammæ, and is converted into milk.

Such is this curious and most admirable contrivance of nature, for the reproduction and propagation of mankind: and such the nature and event of that mysterious action of quickening, which has hitherto been involved in so much darkness and obscurity, as to lead the unthinking multitude to suppose, that giving life to the fœtus was in every instance a new and distinct interposition of the Deity, instead of religiously imputing it to that primary exertion of his omnipotence,





The Action of Quickening.

Wadd del.

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which, in the original formation of Adam, implanted in his nature the power of re-producing his like, and of imparting life and soul to his species, by a fixed and immutable decree, to be continued down from father to son, to the final end and consummation of this sub-lunary world. If the seed of Adam had not been originally endued with the gift of imparting life and spirit to his future generations, how could the souls of his descendants be subjected to original sin? Were any one child, descended from the race of Adam, to receive the gift of life and soul from a subsequent exertion of the power of God, it would become a new and distinct act of creation, and the offspring could not possibly be contaminated by the fall, nor be subjected to the miseries and misfortunes resulting from it, as having received its being from an independent cause.

I have, to the best of my ability, endeavoured to illustrate this occult process of nature, by means of the annexed copper-plate engraving, taken from a drawing of the viscera and womb of an unfortunate female, who fainted and died at the time of quickening; the foetus itself being now preserved in spirits. The structure of the gravid uterus is, however, extremely difficult to be shewn, and the more so under these peculiar circumstances. In the wombs of women who die after this period, or at the time of labour, or soon after delivery, fibres running in various directions are observable, more or less circular, that seem to arise from three distinct origins, namely, from the place where the placenta adheres, and from the aperture and orifice of each of the tubes; with all the veins and vessels communicating to and from the placenta and the mother, surcharged with blood; but it is almost impossible to demonstrate regular plans of vessels and fibres, continued any length, without an interruption which involves us in doubt, and destroys that view of the admirable connexion which nature has formed between the vital organs

gans of the mother and child in a state of advanced pregnancy.

From the foregoing observations we may safely conclude, that the mass of blood is the universal medium by which life is propagated, and health preserved, to every class of beings; and that, in its impure or infected state, it is the source from whence the endless number of hereditary diseases derive their origin. Whatever fault impairs the parent blood, fails not to taint the tender habit of its young; whence it has become an established maxim, that, as healthy parents naturally produce healthy children, so diseased parents as naturally produce a diseased offspring. Some of these diseases appear in the earliest infancy; others occur equally at all ages; whilst others lurk unsuspected in the habit to extreme old age, or even to a new generation, slowly impairing the vital organs, and gradually undermining the constitution, before their source, and fatal tendency, can possibly be discovered. There are some diseases indeed, which, though born with us, cannot be said to be derived from the parent, as when a foetus receives some hurt by an injury done to the mother; while others, neither born with us, nor having any foundation in the constitution, are sucked in with the nurse's milk. Let it then be the care of every parent, who from some local misfortune is so far compelled to depart from the ties of nature as to abandon her tender offspring to the breast of another, to be satisfied, as far as human foresight and medical penetration can reach, that the constitution and blood of the nurse be free from scrophula, and every other hereditary impurity.

Accidental diseases, though not derived from the parents, nevertheless in general spring from the blood, which, constituting or propagating animal life through every part of the body, is necessarily exposed to every external offending cause, from which impression particular accidental diseases ensue. The climate itself, under which people live, will often produce these affections

fections in the blood; and every particular climate hath more or less a tendency to produce a particular disease, either from its excess of heat or cold, or from the mutability of the weather. An immense number of diseases are also produced in the blood by impure air, or such as is loaded with putrid, marshy, and other noxious, vapours. The same thing likewise happens from high-seasoned or corrupted aliment, whether meat or drink; though even the best and most nutritious aliment will hurt, if taken in too great a quantity; not to mention poisons, which are endowed with such pernicious qualities, that, even when taken in the smallest quantity, they produce the most grievous ferment in the blood, ending perhaps with death itself. There are likewise other accidents and dangers to which mankind are exposed, that ingraft innumerable diseases in the mass of blood; such as the bite of venomous reptiles, or of a mad dog; an injudicious inoculation or mis-treatment of the small-pox, or measles; the psora, or itch; the venereal infection; also broken limbs, wounds, and contusions; which, though proceeding from an external cause at first, fail not to impair the blood, and often terminate in internal diseases and premature death.

Man, however, is not left without defence against so many and such great dangers. The human body is possessed of a most wonderful power, by which it preserves itself from diseases, keeps off many, and in a very short time cures some already begun, while others are by the same means more slowly brought to a happy conclusion. This power, called the *autocrateia*, or *vis medicatrix naturæ*, is well known both to physicians and philosophers, by whom it is most justly celebrated; for this alone is sufficient for curing many diseases, and is of service in all. Nay, even the best medicines operate only by exciting and properly directing this expulsive force, by which the excrementitious humours from the aliments and blood are expelled, through the
proper

proper channels of evacuation, through the excretory ducts, chiefly by means of the *insensible perspiration*, by which power the offending humours from the blood and juices are perpetually flying off. But though physicians justly put confidence in this power, and though it generally cures diseases of a slighter kind, yet it is not to be thought that those of a more grievous tendency are to be left to the unassisted efforts of the footsteps of nature. Physicians have therefore a two-fold error to avoid, namely, either despising the powers of the *vis medicatrix* too much, which, if left alone, would work a radical and perfect cure; or, putting too great confidence in these exertions of nature, they are left unseconded and alone, till the virulence of infection or disease undermines the constitution, and bears down all before it.

The grand and perpetual means by which the foul and offending humours in the blood and juices are continually carried off, is undoubtedly through the perspirative pores and vessels, which it is highly compatible with sound health to keep open, and for which purpose medicaments are principally used. When this evacuation is copious and gross enough to be discerned by the eye, as in sweat, the perspiration is said to be sensible; but where it is so volatile as to escape the notice of the senses, as is the case in the ordinary state of the body, it is called *insensible perspiration*.---The vessels through which the perspiration is performed lie obliquely open under the *squammæ* or scales of the cuticle or scarf-skin. They are inconceivably small; from a calculation of *Lewenhoeck* it appears, that the mouths of one hundred and twenty-five thousand of them may be covered with a common grain of sand. The most considerable of those pores are the orifices of the ducts arising from the miliary glands. Through these vessels there is continually transfusing a subtle humour, from every point of the body, and throughout the whole expanse of the cuticle. The matter evacu-

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ated this way is found by certain experience to be more than equal to that evacuated all the other ways, i. e. by stool, urine, &c. Sanctorius found in Italy, under the circumstances of a moderate diet, middle age, and easy life, that the matter insensibly perspired was five-eighths of that which was taken in for food: so that there only remained three-eighths for nutrition, and for the excrements of the nose, ears, intestines, bladder, &c.

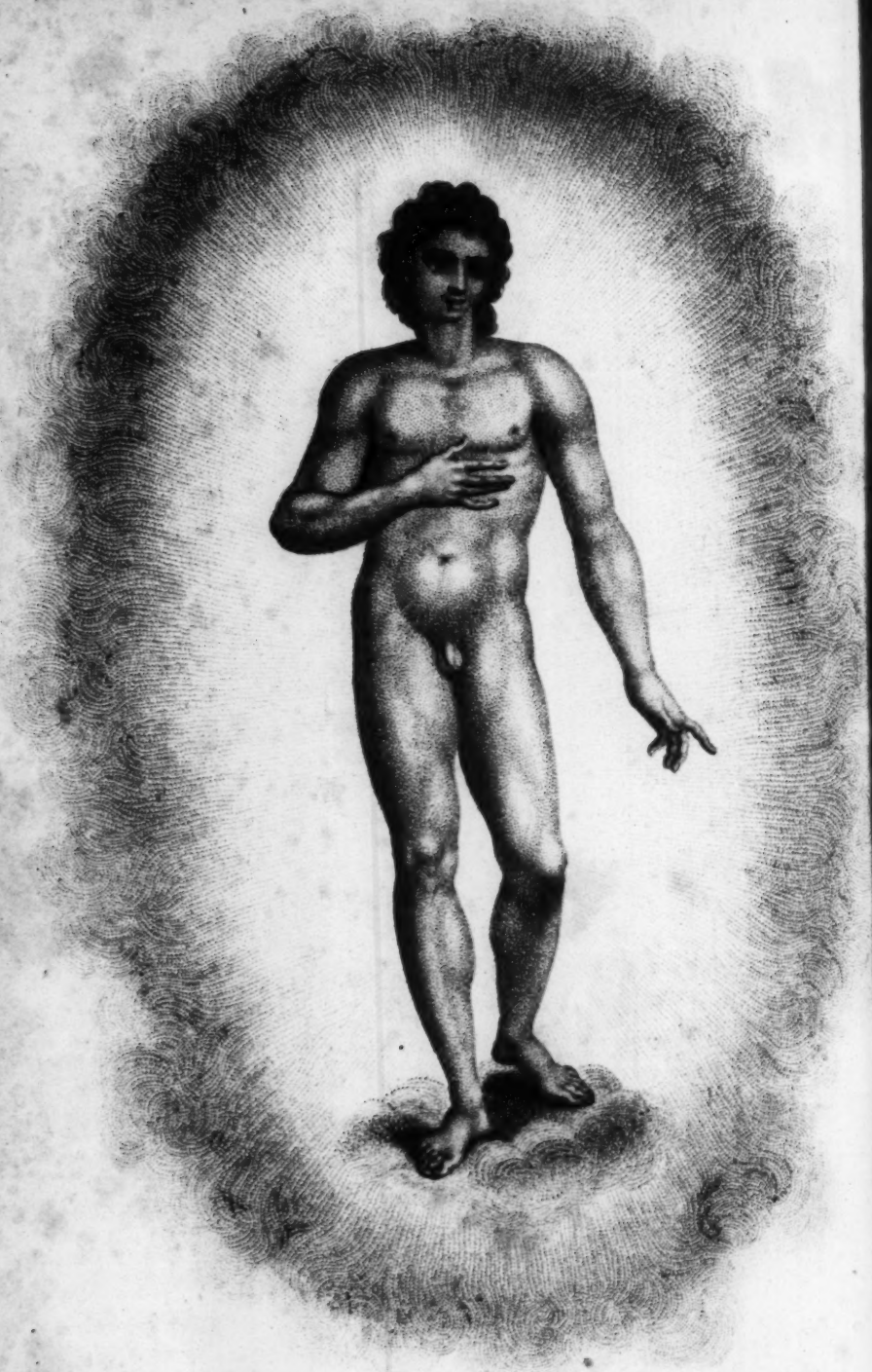
The same author shews, that as much is evacuated by insensible perspiration in one day, as by stool in fourteen days; particularly that, in the space of a night's time, about sixteen ounces are ordinarily discharged by urine, four ounces by stool, and above forty ounces by insensible perspiration. He also observes, that, if a man eat and drink eight pounds in a day, five pounds of it are spent in insensible perspiration; and adds, as to the times, that within five hours after eating there is perspired about one pound: from the fifth to the twelfth hour about three pounds; and from the twelfth to the sixteenth scarcely half a pound. M. Dodart, from a number of experiments made thirty-three years successively, proves that we perspire much more in youth than in age. In some persons the perspiration is so copious, that they void very little of the coarser excrement, though they eat heartily. The benefits of insensible perspiration are so great, that without it animal life could not be preserved. The general cause of perspiration is the circulation and heat of the blood, which enables it to throw off the offending matter. The great subtlety, equability, and plenty, of the matter thus perspired, its increase after sleep, &c. constitute the grand symptoms of a perfect state of health, and the chief means of preserving the same. On the contrary, the departing from these is the first sure sign of approaching diseases.

Perspiration is performed, preserved, and increased, by the viscera, vessels, and fibres; by motion or exercise

as far as the first appearance of sweat; by a moderate use of venery; by sleep of seven or eight hours, the body well covered, yet not loaded, with bed-clothes: cheerfulness; light, fermented, yet solid, food, not fat; pure, not heavy, air, &c. The contraries of all these, as also the increase of the other excretions, diminish, prevent, and deprave, it. Hence we see the cause and effect of this perspirable matter, its use in preserving the parts soft and flexible, and in supplying what is lost, but chiefly in preserving the nervous papillæ moist, fresh, lively, and fit to be affected by objects, and to transmit their impressions. Hence it is, that upon a stoppage of the usual perspiration there arise so many indispositions, particularly fevers, agues, rheums, &c. Too much perspiration occasions weakness, and swoonings; whilst too little, or none at all, occasions the capillary vessels, to dry, wither, and perish. Hence also the larger emunctories come to be obstructed; hence the circulation is disturbed, sharp humours retained; and hence putridity, crudity, fevers, inflammations, and imposthumes. Cold prevents perspiration, by constringing the pores of the skin and thickening the liquors circulating in the cutaneous glands; heat, on the contrary, augments it, both by opening the excretory ducts of the glands, and by increasing the fluidity and velocity of the humours. To determine the state and conditions of the perspiration, so necessary for judging of those of the body, Sanctorius invented a weighing chair, whereby he examined the quantity, degree, &c. of perspiration in several circumstances of the body, under several temperatures of the air, and in the several intervals of eating, drinking, sleeping, &c.

Some of the more extraordinary phenomena observed in this speculation, are, that for some time after eating the perspiration is least of all; that between the fifth and twelfth hour after meals perspiration is greatest; that riding either on horseback, in a coach or ship, &c. brisk motion on the ice, &c. but, above all, a brisk friction





The Insensible Perspiration

Dodd del.

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friction of the skin, promote perspiration surprisingly; and that perspiration is naturally always much less in women than in men. Perspiration is influenced by the passions of the mind. Thus anger and joy increase, and fear and sadness lessen, both perspiration and urine. Anger causes a strong motion in the membranes of the heart, and quickens its contraction and dilatation, and thereby quickens the contraction and dilatation of the blood-vessels and secreting ducts, and of consequence increases the discharges of perspiration and urine, and that more or less, in proportion to the strength and continuance of the passion. Joy affects these discharges in like manner as anger. In the passions of fear and sorrow, perspiration and urine are lessened, by the depression of the activity of the soul under those passions. The proportion of perspiration to urine is increased by all those exercises which increase the motion of the blood, and warm the skin.

We have an account of a person who, by passing many nights in astronomical speculations, had his perspiration so obstructed by the cold and damp of the air in Holland, that a shirt he had worn for five or six weeks was as clean as if it had been worn but one day. The consequence of this was, that he gathered subcutaneous waters, but was cured in time. The garments best calculated to encourage and promote insensible perspiration, to keep the mouths of the minuter vessels open, and to guard the body from the too sudden and violent effects of cold, are those made of flannel. Whence flannel shirts and waistcoats, or a square piece of flannel worn over the breast or pit of the stomach, particularly in the winter months, are productive of such beneficial effects to weakly and debilitated constitutions, and act as a valuable preservative to the hale and robust. In the annexed copper-plate engraving, I have endeavoured to shew the manner in which the insensible perspiration issues from the pores of the body, which can only be discerned by means of a lens; being

of so volatile and subtle a quality, that it passes through our garments with the utmost ease, particularly if woollen: and it even ascends through the bed-clothes like a mist, in the greatest abundance when we are asleep, and the animal functions at rest.

In this manner nature, from all casual obstructions, endeavours to relieve herself; and so long as diseases are recent, and are of a mild tendency, they are usually carried off by this means, without requiring any aid from medicine. When, however, diseases are of long standing, and the humours in the blood become too foul and viscous to be thrown off by the *vis medicatrix nature*, the whole habit is quickly vitiated, and the circulating mass becomes morbid; yet even in this infected state, the vital heat and activity of the blood strives to purify itself, by determining these morbid particles to the skin, where they form scabs, ulcers, pimples, and other spots, as in the scrophula, leprosy, small-pox, measles, syphilis, &c. or else the virulent matter is directed inwards, where, falling upon the lungs and other viscera, death quickly ensues. Here then we may view the shocking consequences which result from those, who enter into matrimony under a tainted or infected state of the blood. Indeed persons who are afflicted with the leprosy, scrophula, or king's evil, should never marry until a perfect cure has been happily effected, and a pure and healthful state of the blood induced. To enter into wedlock under a venereal taint, is a most unwise, a most cruel, and an ungenerous, act. A man, with only a slight infection, by contact with the woman, will himself, perhaps, experience a perfect cure, in consequence of the foul and infectious matter being drawn from the parts by the female organs, seconded by the action of the rugæ and absorbent vessels on the surface of the vagina. But the unhappy female is sure to take the disorder; and, should she prove with child, she not only carries the poisonous infection into the marrow of her own bones, but brings
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an infant offspring into the world, devoted to misery and disease; for whatever foul and infectious humour is implanted in the parent blood, it is immediately carried by the circulation to the vital organs of the child, just as the flame of one candle is by contact communicated to another.

Upon the whole it is evident, that by contemplating Nature, in the œconomy and harmony of our structure, both external and internal, we may quickly discern a proper line of conduct for the conservation of health, and the prolongation of life; and we shall also perceive a more august view of the marvellous works of divine wisdom in the structure of the human breast, than we shall perhaps again find in the whole compass of the universe. The gift of health was evidently the design of our benevolent Creator in the construction of our bodies; it is therefore no less our duty than our interest to preserve this blessing to our latest moments, as the seasoning which gives the relish to all our other enjoyments. To enumerate the various abuses of health, which take place from our earliest infancy, particularly among the rich and gay, and which are continued through the succeeding stages of modish life, would fill a volume. Suffice it to observe, that they prevail more particularly among people who are the most highly polished and refined. To compare their artificial mode of living with that of nature, would afford a very striking contrast, and supply an obvious reason why persons in the lower orders of society are generally the longest lived, and enjoy the best state of health; and hence we are warranted to conclude, that a large proportion of the diseases to which we are subjected, are produced by ourselves.

Notwithstanding this unaccountable abuse of our health, yet the want of it unfits us for most of the common avocations of life, and is more especially an enemy to the social and humane affections, as it generally renders the unhappy sufferer peevish and sullen, disgusted

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gusted at the allotments of Providence, and apt to induce suicide, by suggesting gloomy and suspicious sentiments of the Almighty. It obstructs the free exercise and full improvement of our reason, makes us a burden to our friends, and useless to society. Whereas the uninterrupted enjoyment of health is a constant source of good humour, and good humour is a great friend to openness and benignity of heart; enables us to encounter the various ills and disappointments of this world with more courage, or to sustain them with more patience: and, in short, conduces much, if we are otherwise duly qualified, to our acting our part in every exigency of life with more firmness, consistency, and dignity. Therefore it imports us much to preserve and improve the habit of its enjoyment, without which every other external entertainment is tasteless, and most other advantages are of little avail. To this end, we ought above all things to cultivate prudence, temperance, sobriety, fortitude, and equanimity of temper; for without a prudent care of the body, and a steady government of the mind, to guard the one from disease, and the other from the feuds of passion and prejudice, sound health is unattainable. By temperance we enjoy the real gratifications of life, without suffering any consequent inconvenience. Sobriety enables us to be content with simple and frugal fare, and protects us from the pain and disgrace of intoxication. Fortitude enables us to bear those infirmities which prudence and sobriety cannot shun, and banishes all dread of imaginary evils from our thoughts. Equanimity of temper contributes greatly to the happiness of life, as well as to the preservation of health, by preserving the mind from anxiety and perturbation, and arming us against the calumnies and animosities of human nature. Violent passions, and the excesses they induce, gradually impair and wear away the constitution; whilst the calm and placid state of a temperate mind, and the athletic exercises of the body, preserve the

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the natural functions in full vigour and harmony, and exhilarate the spirits, which are the chief instruments of action, and the companions of health.

OF THE ORIGIN AND FACULTY OF SPEECH.

NATURE has endowed every animal with powers sufficient to make known all those of its sensations and desires, with which it is necessary, for the preservation of the individual or the continuance of the kind, that others of the same species should be acquainted. For this purpose, the organs of all vocal animals are so formed, as, upon any particular impulse, to utter sounds, of which those of the same species instinctively know the meaning. The summons of the hen is instantly obeyed by the whole brood of chickens; and in many others of the irrational tribes a similar mode of communication may be observed between the parents and the offspring, and between one animal and its customary associate. But it is not among animals of the same species only that these instinctive sounds are mutually understood. It is as necessary for animals to know the voices of their enemies as the voices of their friends; and the roaring of the lion is a sound of which, previous to all experience, every beast of the forest is naturally afraid. Between these animal voices and the language of men there is however very little analogy. Human language is capable of expressing ideas and notions, which there is every reason to believe that the brutal mind cannot conceive. "Speech (says Aristotle) is made to indicate what is expedient and what inexpedient, and in consequence of this what is just and unjust. It is therefore given to men; because it is peculiar to them, that of good and evil, just and unjust, they only, with respect to other animals, possess a sense of feeling." The voices of brutes seem intended

tended by nature to express, not distinct ideas or moral modes, but only such feelings as it is for the good of the species that they should have the power of making known; and in this, as in all other respects, these voices are analogous; not to our speaking, but to our weeping, laughing, singing, groaning, screaming, and other natural and audible expressions of appetite and passion.---Another difference between the language of men and the voices of brute animals consists in articulation, by which the former may be resolved into distinct elementary sounds or syllables; whereas the latter, being for the most part unarticulated, is not capable of such a resolution. Hence Homer and Hesiod characterize man by the epithet *μεγέθυς*, or "voice dividing," as denoting a power peculiar to the human species: for, though there are a few birds which utter sounds that may be divided into syllables, yet each of these birds utters but one such sound, which seems to be employed rather as notes of natural music than for the purpose of giving information to others; for, when the bird is agitated, it utters cries which are very different, and have no articulation.---A third difference between the language of men and the significant cries of brute animals, is, that the former is from art and the latter from nature. Every human language is learned by imitation, and is intelligible only to those who either inhabit the country where it is vernacular, or have been taught it by a master or by books: but the voices in question are not learned by imitation; and being wholly instinctive, they are intelligible to all the animals of that species by which they are uttered, though brought together from the most distant countries on the earth. That a dog, which had never heard another bark, would, notwithstanding, bark himself, and that the barkings or yelps of a Lapland dog would be instinctively understood by the dogs of Spain, Calabria, or any other country, are facts which admit not of doubt: but there is no reason

to imagine that a man who had never heard any language spoken would himself speak; and it is well known that the language spoken in one country is unintelligible to the natives of another country where a different language is spoken. Herodotus indeed records a fact which, could it be depended upon, would tend to overturn this reasoning, as it infers a natural relation between ideas and certain articulate sounds. He tells us, that Psammetichus king of Egypt, in order to discover which was the oldest language, caused two children, newly born of poor parents, to be brought up by a shepherd among his cattle, with a strict injunction that they should never hear a human voice; and that at the end of two years the children pronounced at the same time the word *βεικος*, which in the Phrygian language signified *bread*. Either this is one of the many fables which that credulous historian collected among the Egyptians, or the conduct and reasoning of Psammetichus were very absurd; for it is added, that from this circumstance he inferred that the Phrygians were the most ancient people, and that they spoke the primitive language. The only rational purpose for which such an experiment could be instituted, would be to discover, not which is the oldest or the latest language, but whether there be such a thing as a language of nature or instinct: but in such a language it is obvious that there could be no word to denote bread, because in what is called the state of nature bread is unknown. The experiment of Psammetichus was probably never made; but in the woods of different countries solitary savages have at different times been caught, who, though they apparently possessed all the sagacity which is natural to man, and though their organs both of hearing and of speech were perfect, never used articulate sounds as signs of sensations or ideas. They uttered indeed the inarticulate cries which are instinctively expressive of pleasure and pain, of joy and sorrow, more distinctly and forcibly than

men civilized ; but with respect to the very rudiments of language, they were what Horace represents all mankind to have been originally--*mutum et turpe pecus*. Indeed it seems to be obvious, that, were there any instinctive language, the first words uttered by all children would be the same; and that every child, whether born in the desert or in society, would understand the language of every other child however educated or however neglected. Nay more, we may venture to affirm, that such a language, though its general use might, in society, be superseded by the prevailing dialect of art, could never be wholly lost; and that no man of one country would find it difficult, far less impossible, to communicate the knowledge of his natural and most pressing wants to the men of any other country, whether barbarous or civilized. The exercise of cultivated reason, and the arts of civil life, have indeed eradicated many of our original instincts, but they have not eradicated them all: there are external indications of the internal feelings and desires, which appear in the most polished society, and which are confessedly instinctive. The passions, emotions, sensations, and appetites, are naturally expressed in the countenance by characters which the savage and the courtier can read with equal readiness. The look serene, the smoothed brow, the dimpled smile, and the glistening eye, denote equanimity and good will in terms which no man mistakes. The contracted brow, the glaring eye, the fullen gloom, and the threatening air, denote rage, indignation, and defiance, as plainly and forcibly as revilings or imprecations. To teach men to disguise these instinctive indications of their temper, and

“ To carry smiles and sunshine in their face,

“ When discontent sits heavy at their heart,”

constitutes a great part of modern and refined education. Yet in spite of every effort of the utmost skill, and of every motive resulting from interest, the most

consummate

consummate hypocrite, or the most hackneyed politician, is not always able to prevent his real disposition from becoming apparent in his countenance. He may indeed, by long practice, have acquired a very great command both over his temper and over the instinctive signs of it; but at times nature will predominate over art, and a sudden and violent passion will flash in his face, so as to be visible to the eye of every beholder. If these observations be just, and we flatter ourselves with the belief that no man will call them in question, it seems to follow, that, if mankind were prompted by instinct to use articulate sounds as indications of their passions, affections, sensations, and ideas, the language of nature could never be wholly forgotten, and that it would sometimes predominate over the language of art. Groans, sighs, and some inarticulate lively sounds, are naturally expressive of pain and pleasure, and equally intelligible to all mankind. The occasional use of these no art can wholly banish; and if there were inarticulate sounds naturally expressive of the same feelings, it is not conceivable that art or education could banish the use of them, merely because by the organs of the mouth they are broken into parts and resolvable into syllables.

It being thus evident that there is no instinctive articulated language, it has become an inquiry, no less curious than important, how mankind were first induced to fabricate articulate sounds, and to employ them for the purpose of communicating their thoughts. Children learn to speak by insensible imitation; and, when advanced some years in life, they study foreign languages under proper instructors: but the first men had no speakers to imitate, and no formed language to study; by what means then did they learn to speak? On this question only two opinions can possibly be formed. Either language must have been originally revealed from heaven, or it must be the fruit of human industry. The greater part of Jews and Christians,

tians, and even some of the wisest Pagans, have embraced the former opinion; which seems to be supported by the authority of Moses, who represents the Supreme Being as teaching our first parents the names of animals. The latter opinion is held by Diodorus Siculus, Lucretius, Horace, and many other Greek and Roman writers, who consider language as one of the arts invented by man. The first men, say they, lived for some time in woods and caves after the manner of beasts, uttering only confused and indistinct noises; till, associating for mutual assistance, they came by degrees to use articulate sounds mutually agreed upon for the arbitrary signs or marks of those ideas in the mind of the speaker which he wanted to communicate to the hearer. This opinion sprung from the atomic cosmogony which was framed by Mochus the Phenician, and afterwards improved by Democritus and Epicurus; and, though it is part of a system in which the first men are represented as having grown out of the earth like trees and other vegetables, it has been adopted by several modern writers of high rank in the republic of letters, and is certainly in itself worthy of examination.

The most learned, and on every account the most respectable, author who now supports this opinion, candidly acknowledges, that, if language was invented, it was of very difficult invention, and far beyond the reach of the grossest savages. Accordingly he holds, that though men were originally solitary animals, and had no natural propensity to the social life; yet before language could be invented they must have been associated for ages, and have carried on of concert some common work. Nay, he is decidedly of opinion, that before the invention of an art so difficult as language, men must not only have herded together, but have also formed some kind of civil polity, have existed in that political state a very long time, and have acquired such powers of abstraction as to be able to form general ideas.

But

But it is obvious, that men could not have instituted civil polity, or have carried on of concert any common work, without communicating their designs to each other: and there are four ways by which the author thinks that this could have been done before the invention of speech; viz. 1st, inarticulate cries, expressive of sentiments and passions; 2d, gestures, and the expression of countenance; 3d, imitative sounds expressive of audible things; and, 4th, painting, by which visible objects may be represented. Of these four ways of communication it is plain that only two have any connection with language, viz. inarticulate cries and imitative sounds; and of these the author abandons the latter as having contributed nothing to the invention of articulation, though he thinks it may have helped to advance its progress. "I am disposed (says he) to believe, that the framing of words with an analogy to the sound of things expressed by them belongs rather to languages of art than to the first languages spoken by rude and barbarous nations." It is therefore inarticulate cries only that must have given rise to the formation of language. Such cries are used by all animals who have any use of voice to express their wants; and the fact is, that all barbarous nations have cries expressing different things, such as joy, grief, terror, surprise, and the like. These, together with gestures and expression of the countenance, were undoubtedly the methods of communication first used by men: and we have but to suppose (says our author) a great number of our species carrying on some common business, and conversing together by signs and cries; and we have men just in a state proper for the invention of language. For, if we suppose their numbers to increase, their wants would increase also; and then these two methods of communication would become too confined for that larger sphere of life which their wants would make necessary. The only thing then that remained to be done was to give a greater variety

variety to the instinctive cries; and, as the natural progress is from what is easy to what is more difficult, the first variation would be merely by tones from low to high, and from grave to acute. But this variety could not answer all the purposes of speech in society; and, being advanced so far, it was natural that an animal so sagacious as man should go on farther, and come at last to the only other variation remaining, namely, articulation. The first articulation would be very simple, the voice being broken and distinguished only by a few vowels and consonants. And as all natural cries are from the throat and larynx, with little or no operation of the organs of the mouth, it is natural to suppose, that the first languages were for the greater part spoken from the throat; that what consonants were used to vary the cries were mostly guttural; and that the organs of the mouth would at first be very little employed. From this account of the origin of language it appears, that the first sounds articulated were the natural cries by which men signified their wants and desires to one another, such as calling one another for certain purposes, and other such things as were most necessary for carrying on any joint work: then in process of time other cries would be articulated, to signify, that such and such actions had been performed or were performing, or that such events had happened relative to the common business. Then names would be invented of such objects as they were conversant with; but, as we cannot suppose savages to be deep in abstraction or skilful in the art of arranging things according to their genera and species, all things however similar, except perhaps the individuals of the lowest species, would be expressed by different words not related to each other either by derivation or composition. Thus would language grow by degrees; and, as it grew, it would be more and more broken and articulated by consonants; but still the words would retain a great deal of their original nature of animal cries.

cries. And thus things would go on, words unrelated still multiplying, till at last the language would become too cumbersome for use; and then art would be obliged to interpose, and form a language upon a few radical words, according to the rules and method of etymology.

Those who think that language was originally revealed from heaven consider this account of its human invention as a series of mere suppositions hanging loosely together, and the whole suspended from no fixed principle. The opinions of Diodorus, Vitruvius, Horace, Lucretius, and Cicero, which are frequently quoted in its support, are in their estimation of no greater authority than the opinions of other men; for, as language was formed and brought to a great degree of perfection long before the era of any historian with whom we are acquainted, the antiquity of the Greek and Roman writers, who are comparatively of yesterday, gives them no advantage in this inquiry over the philosophers of France and England. Aristotle has defined man to be *ζῷον λόγον ἔχον*: and the definition is so far just, that man is much more remarkable for imitation than invention: and therefore, say the reasoners on this side the question, had the human race been originally *mutum et turpe pecus*, they would have continued so to the end of time, unless they had been taught to speak by some superior intelligence. That the first men sprung from the earth like vegetables, no modern philosopher has ventured to assert; nor does there any where appear sufficient evidence that men were originally in the state of savages. The oldest book extant contains the only rational cosmogony known to the ancient nations; and that book represents the first human inhabitants of this earth, not only as reasoning and speaking animals, but also as in a state of high perfection and happiness, of which they were deprived for disobedience to their Creator. Moses, setting aside his claim to inspiration, deserves, from

the consistence of his narrative, at least as much credit as Mochus, or Democritus, or Epicurus; and, from his prior antiquity, if antiquity could on this subject have any weight, he would deserve more, as having lived nearer to the period of which they all write. But the question respecting the origin of language may be decided without resting in authority of any kind; merely by considering the nature of speech and the mental and corporeal powers of man. Those who maintain it to be of human invention, suppose men at first to have been solitary animals, afterwards to have herded together without government or subordination, then to have formed political societies, and by their own exertions to have advanced from the grossest ignorance to the refinements of science. But, say the reasoners whose cause we are now pleading, this is a supposition contrary to all history and to all experience. There is not upon record a single instance well authenticated of a people emerging by their own efforts from barbarism to civilization. There have indeed been many nations raised from the state of savages: but it is known that they were polished, not by their own repeated exertions, but by the influence of individuals or colonies from nations more enlightened than themselves. The original savages of Greece were tamed by the Pelasgi, a foreign tribe; and were afterwards further polished by Orpheus, Cecrops, Cadmus, &c. who derived their knowledge from Egypt and the East. The ancient Romans, a ferocious and motley crew, received the blessings of law and religion from a succession of foreign kings: and the conquests of Rome at a later period contributed to civilize the rest of Europe. In America, the only two nations which at the invasion of the Spaniards could be said to have advanced a single step from barbarism, were indebted for their superiority over the other tribes, not to the gradual and unassisted progress of the human mind, but to the wise institutions of foreign legislators.

From

From what has been observed, in tracing the progress of man from the savage state to that of political society, experience teaches us, that in every art it is much easier to improve than to invent. The human mind, when put into the proper track, is indeed capable of making great advances in arts and sciences; but, if any credit be due to the records of history, it has not, in a people sunk in ignorance and barbarity, sufficient vigour to discover that track, or to conceive a state different from the present. If the rudest inhabitants of America and other countries have continued, as there is every reason to believe they have continued, for ages in the same unvaried state of barbarism; how is it imaginable that people so much ruder than they, as to be ignorant of all language, should think of inventing an art so difficult as that of speech, or even to frame a conception of the thing? In building, fishing, hunting, navigating, &c. they might imitate the instinctive arts of other animals; but there is no other animal that expresses its sensations and affections by arbitrary articulate sounds. It is said, that before language could be invented, mankind must have existed for ages in large political societies, and have carried on of concert some common work: but, if inarticulate cries, and the natural visible signs of the passions and affections, were modes of communication sufficiently accurate to keep a large society together for ages, and to direct its members in the execution of some common work, what could be their inducement to the invention of an art so useless and difficult as that of language? Let us however suppose, say the advocates for the cause which we are now supporting, that different nations of savages set about inventing an art of communicating their thoughts, which experience had taught them was not absolutely necessary; how came they all, without exception, to think of the one art of articulating the voice for this purpose? Inarticulate cries, out of which language is fabricated,

have indeed an instinctive connection with our passions and affections: but there are gestures and expressions of countenance with which our passions and affections are in the same manner connected. If the natural cries of passion could be so modified and enlarged as to be capable of communicating to the hearer every idea in the mind of the speaker, it is certain that the natural gestures could be so modified as to answer the very same purpose; and it is strange that among the several nations who invented languages, not one should have stumbled upon fabricating visible signs of their ideas, but that all should have agreed to denote them by articulate sounds. Every nation whose language is narrow and rude supplies its defects by violent gesticulation; and therefore, as much less genius is exerted in the improvement of any art than was requisite for its first invention, it is natural to suppose, that, had men been left to devise for themselves a method of communicating their thoughts, they would not have attempted any other than that by which they now improve the language transmitted by their fathers. It is vain to urge that articulate sounds are fitter for the purpose of communicating thought than visible gesticulation: for, though this may be true, it is a truth which could hardly occur to savages, who had never experienced the fitness of either: and if, to counterbalance the superior fitness of articulation, its extreme difficulty be taken into view, it must appear little less than miraculous that every savage tribe should think of it rather than the easier method of artificial gesticulation. Savages, it is well known, are remarkable for their indolence, and for always preferring ease to utility; but their modes of life give such a pliancy to their bodies, that they could with very little trouble bend their limbs and members into any position agreed upon as the sign of ideas. This is so far from being the case with respect to the organs of articulation, that it is with extreme difficulty, if at all, that a man advanced

vanced in life can be taught to articulate any sound which he has not been accustomed to hear. No foreigner, who comes to England after the age of thirty, ever pronounces the language tolerably well; an Englishman of that age can hardly be taught to utter the guttural sound which a Scotchman gives to the Greek χ , or even the French sound of the vowel u : and, of the solitary savages who have been caught in different forests, we know not that there has been one who, after the age of manhood, learned to articulate any language so as to make himself readily understood. The present age has indeed furnished many instances of deaf persons being taught to speak intelligibly, by skilful masters moulding the organs of the mouth into the positions proper for articulating the voice; but who was to perform the task among the inventors of language, when all mankind were equally ignorant of the means by which articulation is effected? In a word, daily experience informs us, that men who have not learned to articulate in their childhood never afterwards acquire the faculty of speech but by such helps as savages cannot obtain; and therefore, if speech was invented at all, it must have been either by children who were incapable of invention, or by men who were incapable of speech. A thousand, nay a million, of children could not think of inventing a language. While the organs are pliable, there is not understanding enough to frame the conception of a language; and, by the time that there is understanding, the organs are become too stiff for the task. And therefore, say the advocates for the divine origin of language, reason as well as history intimates, that mankind in all ages must have been speaking animals; the young having constantly acquired this art by imitating those who were older; and we may warrantably conclude, *that our first parents received it by immediate inspiration.*

To this account of the origin of language an objection readily offers itself. If the first language was

communicated by inspiration, it must have been perfect, and held in reverence by those who spoke it, i. e. by all mankind. But a vast variety of languages have prevailed in the world; and some of these which remain are known to be very imperfect, whilst there is reason to believe that many others are lost. If different languages were originally invented by different nations, all this would naturally follow from the mixture of these nations; but what could induce men, possessed of one perfect language of divine original, to forsake it for barbarous jargons of their own invention, and in every respect inferior to that with which their forefathers or themselves had been inspired?

In answer to this objection, it is said, that nothing was given by inspiration but the faculty of speech and the elements of language; for, when once men had language, it is easy to conceive how they might have modified it by their natural powers, as thousands can improve what they could not invent. The first language, if given by inspiration, must in its principle have had all the perfection of which language is susceptible; but from the nature of things it could not possibly be very copious. The words of language are either proper names or the signs of ideas and relations; but it cannot be supposed that the All-wise Instructor would load the memories of men with words to denote things then unknown, or with the signs of ideas which they had not then acquired. It was sufficient that a foundation was laid of such a nature as would support the largest superstructure which they might ever after have occasion to raise upon it, and that they were taught the method of building by composition and derivation. This would long preserve the language radically the same, though it could not prevent the introduction of different dialects in the different countries over which men spread themselves. In whatever region we suppose the human race to have been originally placed, the increase of their numbers would in

process

process of time either disperse them into different nations, or extend the one nation to a vast distance on all sides from what we may call the seat of government. In either case they would every where meet with new objects, which would occasion the invention of new names; and, as the difference of climate and other natural causes would compel those who removed eastward or northward to adopt modes of life in many respects different from the modes of those who travelled towards the west or the south, a vast number of words would in one country be fabricated to denote complex conceptions, which must necessarily be unintelligible to the body of the people inhabiting countries where those conceptions had never been formed. Thus would various dialects be unavoidably introduced into the original language, even whilst all mankind remained in one society and under one government. But, after separate and independent societies were formed, these variations would become more numerous, and the several dialects would deviate farther and farther from each other, as well as from the idiom and genius of the parent tongue, in proportion to the distance of the tribes by whom they were spoken. If we suppose a few people either to have been banished together from the society of their brethren, or to have wandered of their own accord to a distance, from which through trackless forests they could not return, (and such emigrations have often taken place,) it is easy to see how the most copious language must in their mouths have soon become narrow, and how the offspring of inspiration must have in time become so deformed as hardly to retain a feature of the ancestor whence it originally sprung. Men do not long retain a practical skill in those arts which they never exercise; and there are abundance of facts to prove, that a single man cast upon a desert island, and having to provide the necessities of life by his own ingenuity, would soon lose the art of speaking with fluency his mother-tongue. A
small

small number of men cast away together, would indeed retain that art somewhat longer; but, in a space of time not very long, it would in a great measure be lost by them or their posterity. In this state of banishment, as their time would almost be wholly occupied in hunting, fishing, and other means within their reach to support a wretched existence, they would have very little leisure, and perhaps less desire, to preserve by conversation the remembrance of that ease and those comforts of which they now found themselves for ever deprived; and they would of course soon forget all the words which in their native language had been used to denote the accommodations and elegancies of polished life. This at least seems to be certain, that they would not attempt to teach their children a part of language which in their circumstances could be of no use to them, and of which it would be impossible to make them comprehend the meaning; for, where there are no ideas, the signs of ideas cannot be made intelligible. From such colonies as this dispersed over the earth, it is probable that all those nations of savages have arisen, which have induced so many philosophers to imagine that the state of the savage was the original state of man; and, if so, we see that from the language of inspiration must have unavoidably sprung a number of different dialects, all extremely rude and narrow, and retaining nothing of the parent tongue, except perhaps the names of the most conspicuous objects of nature, and of those wants and enjoyments which are inseparable from humanity. The savage state has no artificial wants, and furnishes few ideas that require *terms* to express them. The habits of solitude and silence incline a savage rarely to speak; and, when he speaks, he uses the same terms to denote different ideas. Speech therefore, in this rude condition of men, must be extremely narrow and extremely various. Every new region, and every new climate, suggests different ideas, and creates different wants,
which

which must be expressed either by terms entirely new, or by old terms used with a new signification. Hence must originate great diversity, even in the first elements of speech, among all savage nations, the words retained of the original language being used in various senses, and pronounced, as we may believe, with various accents. When any of those savage tribes emerged from their barbarism, whether by their own efforts or by the aid of people more enlightened than themselves, it is obvious that the improvement and copiousness of their language would keep pace with their own progress in knowledge and in the arts of civil life; but in the infinite multitude of words which civilization and refinement add to language, it would be little less than miraculous were any two nations to agree upon the same sounds to represent the same ideas. Superior refinement, indeed, may induce imitation, conquests may impose a language, and extension of empire may melt down different nations and different dialects into one mass; but independent tribes naturally give rise to diversity of tongues, nor does it seem possible that they should retain more of the original language than the words expressive of those objects with which all men are at all times equally concerned.

The variety of tongues, therefore, the copiousness of some, and the narrowness of others, furnish no good objection to the divine origin of language in general; for, whether language was first revealed from heaven, or in a course of ages invented by men, a multitude of dialects would inevitably arise as soon as the human race was separated into a number of distinct and independent nations.--We pretend not to decide for our readers in a question of this nature: we have given the best arguments on both sides which we could either devise or find in the writings of others; and if it be seen, as we doubt not it will, that our own judgment leans to the side of revelation, let it not be hastily condemned by those whose knowledge

of language extends no farther than to Greece and Rome, and France and England; for, if they will carry their philological inquiries to the east, they may perhaps be able to trace the remains of one original language through a great part of the globe at this day.

Numberless instances of this might be given, but our limits will permit us to produce only a very few. In the Shanscrit, or ancient language of the Gentoos, *our* signifies a *day*: (see Halhed's Preface to the Code of Gentoo Laws.) In other eastern languages, the same word was used to denote both *light* and *fire*. Thus in the Chaldee, *ur* is *fire*; in the Egyptian, *or* is the *sun* or *light*, (Plut. de Osir. et Isid.): in the Hebrew, *aur* is *light*: in the Greek *aur* is the *air*, often *light*: in Latin, *aura* is the *air*, from the Æolic Greek; and in Irish, it is *aeur*. From the very same original we have the Greek word *pur*, and the English *fire*. In Hebrew, *or* signifies to *raise*, *lift up one's self*, or *be raised*: hence plainly are derived the Greek *orw*, to *raise*, *excite*, and the Latin *orior* to *arise*; whence *oriens* the *east*, and English, *orient*, *oriental*; also Latin, *origo*, and English, *origin*, *originate*, &c.--The word *khunt*, in the Shanscrit dialect, signifies a *small territory*, which is retained in *kurthos*, *Kent*, *Canton*, *Cantabria*. The words *khān*, *kin*, *cean*, *gan*, *gen*, *gin*, are of the same kind, and pervade Asia and Europe from the Ganges to Garonne. The word *light* English, *lucht* Flemish, *lux* Roman, and *luxos* Greek, has been traced to Egypt. *Aretz*, *arek*, *erech*, *hertha*, *earth*, and *erde*, are all one word from Palestine and Chaldee to Britain and Germany.---The Chaldeans turned the Hebrew word *shur* or *shor*, which signifies an *ox*, into *thor*, as likewise did the Phenicians (see Plut. Vit. Syll.); hence the Greek *tauros*, the Latin *taurus*, the French *taureau*, and the Italian and Spanish *toro*. The Hebrew word *bit* or *beith*, which signifies *cavity*, *capacity*, the *concave* or *inside* of any place, has spread
itself

itself far and wide, still retaining nearly the original signification; in the Persian language it is *BAD*, *BED*, *BHAD*, and signifies a *house* or *abode*. In all the dialects of the Gothic tongue, *BODE* signifies the same thing; hence the English *abide*, *abode*, *booth*, *boat*, and the French *batteau*. In all these instances there is a striking resemblance in sound as well as in sense between the derived and the primitive words; but this is not always the case, even when of the legitimacy of the derivation no doubt can be entertained. It has been shewn (see Boswell's *Life of Johnson*), that the French *JOUR*, a *day*, is derived from the Latin *DIES*; but it may be certainly traced from a higher source. In many of the oriental dialects, *DI*, *bright*, is a name of the *sun*; hence the Greek $\Delta\iota$, *Jupiter*, and the Latin *DIES*, a *day*. From *DIES* comes *DIURNUS*; in the pronunciation of which, either by the inaccuracy of the speaker or of the hearer, *diu* is readily confounded with *giu*; then of the ablative of this adjective, corruptly pronounced *giurno*, the Italians make a substantive *GIORNO*, which by the French is readily contracted into *GIOUR* or *JOUR*. From the same root *DI*, comes $\Delta\iota\omicron\varsigma$, α , ω , the Eolic $\Delta\iota\epsilon\omicron\varsigma$, the Latin *DIVUS*, and the Celtic *DHIA*, *God*.

Language, whatever was its origin, must be subject to perpetual changes from its very nature, as well as from that variety of incidents which affect all sublunary things; and those changes must always correspond with the change of circumstances in the people by whom the language is spoken. When any particular set of ideas becomes prevalent among any society of men, words must be adopted to express them; and from these the language must assume its character. Hence the language of a brave and martial people is bold and nervous, although perhaps rude and uncultivated; while the language of those nations in which luxury and effeminacy prevail, are flowing and harmonious, but devoid of force and energy of expression.

But although it may be considered as a general rule, that the language of any people is a very exact index of the state of their minds, yet it admits of some particular exceptions. For as man is naturally an imitative animal, and in matters of this kind never has recourse to invention but through necessity, colonies planted by any nation, at whatever distance from the mother-country, always retain the same general sounds and idiom of language with those from whom they are separated. In process of time, however, the colonists and the people of the mother-country, by living under different climates, by being engaged in different occupations, and by adopting, of course, different modes of life, may lose all knowledge of one another, assume different national characters, and form each a distinct language to themselves, totally different in genius and style, though agreeing with one another in the fundamental sounds and general idiom. If, therefore, this particular idiom, formed before their separation, happen to be more peculiarly adapted to the genius of the mother-country than of the colonies, these will labour under an inconvenience on this account, which they may never be wholly able to overcome; and this inconvenience must prevent their language from ever attaining to that degree of perfection to which, by the genius of the people, it might otherwise have been carried. Thus various languages may have been formed out of one parent tongue; and thus that happy concurrence of circumstances which has raised some languages to a high degree of perfection, may be easily accounted for, while many ineffectual efforts have been made to raise other languages to the same degree of excellence.

What was the original language, or whether it was divided into a variety of dialects as at this day, can only be determined by the rules of analogy; and these will lead us to believe, that whatever might have been the primitive language of mankind, if human nature

was then constituted as it is at present, a great variety of dialects must of necessity have sprung up in the space of near two thousand years. If we adopt the Mosaic account of the antediluvian events, we must admit that the descendants of Cain for some ages lived separated from those of Seth. Their manner of life, their religious ceremonies, their laws, their form of government, were probably different, and these circumstances would of course produce a variety in their language. The posterity of Cain were an inventive race. They found out the art of metallurgy, music, and some think of weaving; and in all probability many other articles conducive to the ease and accommodation of life were the produce of their ingenuity. A people of this character must have paid no small regard to their words and modes of expression. When new inventions are introduced, a new race of words and phrases of necessity spring up, corresponding to the recent stock of ideas to be intimated. Besides, among an inventive race of people, new vocables would be continually fabricated, in order to supply the deficiencies of the primitive language, which was most probably scanty in words, and its phraseology unpolished. The Cainites, then, among their other improvements, cannot well be supposed to have neglected the cultivation of language.

Many conjectures have been hazarded both by ancient and modern authors with respect to the origin of writing; an art nearly connected with the art of speaking. According to Pliny, "the Assyrian letters had always existed; some imagined that letters had been invented by the Egyptian Mercury; others ascribed the honour of the invention to the Syrians." The truth seems to be, that letters were an antediluvian invention, preserved among the Chaldeans or Assyrians, who were the immediate descendants of Noah, and inhabited those very regions in the neighbourhood of which the ark rested, and where that patriarch after-

wards fixed his residence. This circumstance affords a strong presumption that the use of letters was known before the deluge, and transmitted to the Assyrians and Chaldeans by Noah their progenitor, or at least by their immediate ancestors of his family. If then, the art of writing was an antediluvian invention, in all probability it originated among the posterity of Cain.

The descendants of Seth, according to the oriental tradition, were chiefly addicted to agriculture and tending of cattle. They devoted a great part of their time to the exercises of piety and devotion. From this circumstance they came to be distinguished by the title of the * *sons of God*. According to this description, the Sethites were a simple unimproved race of people till they mingled with the race of Cain; after which period they at once adopted the improvements and the vices of that wicked family.

It is not, however, probable, that all the descendants of Seth, without exception, mingled with the Cainites. That family of which Noah was descended had not incorporated with the race of Cain: it was, according to the sacred historian, lineally descended from Seth, and had preserved the worship of the true God, when, it is probable, the greatest part of mankind had apostatised and become idolaters. Along with the true religion, the progenitors of Noah had preserved that simplicity of manners and equability of character which had distinguished their remote ancestors. Agriculture and rearing cattle had been their favourite occupations. Accordingly we find, that the patriarch Noah, immediately "after the deluge," became a husbandman, and "planted a vineyard." The chosen patriarchs, who doubtless imitated their pious

* From this passage (Gen. ch. vi. ver. 2.) misunderstood, originated the absurd idea of the connection between angels and mortal women. See Joseph. Antiq. Jud. lib. 1. cap. 4. See Euseb. Chron. lib. 1. All the fathers of the church, almost without exception, adopted this foolish notion. See also Philo. Jud. p. 198. ed. Turn, Paris 1552.

ancestors,

ancestors, were shepherds, and employed in rearing and tending cattle. Indeed there are strong presumptions that the Chaldeans, Assyrians, Syrians, Canaanites, and Arabians, in the earliest ages followed the same profession.

From this deduction it is at least probable, that the ancestors of Noah persisted in the observance of the same simplicity of manners which had been handed down from Adam to Seth, and from him to Enoch, Methuselah, Lamech, and from this last to Noah. According both to scripture and tradition, innovations were the province of the Cainites, while the descendants of Seth adhered to the primitive and truly patriarchal institutions.

If these suggestions are allowed the merit of probability, we may justly infer that the language of Noah, whatever it was, differed very little from that of Adam, and that, if it is possible to ascertain the language of the former, that of the latter will of course be discovered. And hence we shall be enabled to trace the origin and antiquity of the Hebrew tongue; and to shew that it really claims the honour of being the original language of mankind.

Whatever may have been the dialect of Noah and his family, that same dialect, according to the Mosaic account, must have obtained, without any alteration, till the era of the building of the tower of Babel.-- Upon this occasion a dreadful convulsion took place; the language of mankind was confounded, and men were scattered abroad upon the face of all the earth.

How far this catastrophe extended, is not the business of the present enquiry. One thing is certain beyond all controversy, namely, that the languages of all the nations which settled near the centre of population were but slightly affected by its influence. Strabo, a very judicious writer, has observed, that three thousand years after, the inhabitants of those countries exhibited a very strong resemblance of cognation "in their

their language, manner of living, and the lineaments of their bodies. At the same time he observes, that the resemblance in all those particulars was most remarkable among the inhabitants of Mesopotamia."

It appears, then, that the languages of the Armenians, Syrians, Assyrians, Arabians, and probably of the Chanaanim, did not suffer materially by the confusion of tongues. This observation may also be extended to many of the dialects spoken by the people who settled in those countries not far distant from the region where the sacred historian has fixed the original seat of mankind after the deluge. The inference then is, that if Noah and his family spoke the original language of Adam, as they most probably did, the judgment which affected the confusion of tongues did not produce any considerable alteration in the language of such of the descendants of Noah as settled near the region where that patriarch had fixed his residence after he quitted the ark.

But, supposing the changes of language produced by the catastrophe at the building of the tower as considerable as has ever been imagined, it does not, after all, appear certain that all mankind without exception were engaged in this impious project. If this assertion should be well founded, the consequence will be, that there was a chosen race who did not engage in that enterprise. If there was such a family, society, or body of men, it will follow, that this family, society, &c. retained the language of its great ancestor without change or variation.

There is reason to believe, that Ham, upon the heavy curse denounced upon him by his father, retired from his brethren, and fixed his residence elsewhere. Accordingly, we find his descendants scattered far and wide, at a very great distance from the Gordycean mountains, where the ark is generally supposed to have rested immediately after the flood. Some of them we find in Chaldaea, others others in Arabia Felix, others

others in Ethiopia, others in Canaan, and others in Egypt; and, finally, multitudes scattered over all the coast of Africa. Between those countries were planted many colonies of Shemites, in Elam, Assyria, Syria, Arabia, &c. We find, at the same time, the descendants of Shem and Japheth, settled, in a great degree, contiguous to each other. This dispersion of the Hamites, irregular as it is, can scarcely have been accidental; it must have been owing to some uncommon cause, and none seems more probable than that assigned above. If, then, the descendants of Ham separated early, and took different routes, as from their posterior situations it appears they did, they could not all be present at the building of the tower.

It is not probable that the descendants of Shem were engaged in this undertaking, since we find that they were not scattered abroad upon the face of all the earth. The children of Shem were Elam, Ashur, Arphaxad, Lud, and Aram. Elam settled near the mouth of the river Tigris, in the country which, by Gentile writers, was called Elymais. Above him, on the same river, lay the demesne of Ashur on the western side. In like manner, upon the same river, above him, was situated Aram, who possessed the country of Aramea; and opposite to him was Arphaxad, or Arbaces, and his country was denominated Arphachitis. Lud, as some think, settled at Lydia among the sons of Japheth; but this opinion seems to be without foundation. Here, then, there is a dispersion, but such as must have originated from the nature of the thing. The four, or rather five, brothers, all settled contiguous, without being scattered abroad upon the face of the whole earth. Besides, there was no confusion of language among these tribes: they continued to use one and the same through many succeeding generations.

From these circumstances, it appears that the posterity of Shem were not involved in the guilt of the builders of the tower, and of consequence did not undergo

dergo their punishment. If, then, the language of the Shemites was not confounded upon the erection of the tower, the presumption is, that they retained the language of Noah, which, in all probability, was that of Adam.

Additions and improvements might doubtlessly be introduced, but still the radical stamina of the language remained unchanged. To these arguments we may likewise add, that in all probability the worship of the true God was preserved in the line of Arphaxad, after the generality of the other sects had lapsed into idolatry. Out of this family Abraham was taken, in whose line the true religion was to be preserved. Whether Abraham was an idolater when he dwelt in Chaldea, the scriptures do not inform us, though it seems to be evident that his father was. One thing, however, is certain, namely, that Jehovah appeared to him, and pronounced a blessing upon him before he left Ur of the Chaldees. This circumstance no doubt indicates, that this patriarch had made uncommon advances in piety and virtue, even prior to his emigration. The progenitors of his family had been distinguished by adhering to the true religion. About this time, however, they began to degenerate, and to adopt the idolatry of their apostate neighbours. It was then that Abraham was commanded by Heaven to "leave his kindred and his father's house, and to travel into a land which was to be shewn him." The Almighty intended that the true religion should be preserved in his line, and therefore removed him from a country and kindred, by the influence of whose bad example his religious principles might be endangered. His family had only of late apostatized; till that period they had preserved both the language and religion of their venerable ancestors.

But, however much Abraham might differ from the other branches of his family in his religious sentiments, his language was certainly in unison with theirs. The

consequence

consequence of this unquestionable position is, that the language which he carried with him into Chanaan was exactly the same with that of his family which he relinquished when he began his peregrinations. Hence it will follow, that the language denominated Hebrew, and that of the Chasidim or Chaldeans were originally one and the same, and were actually the first language spoken upon earth, according to the Mosaic history.

Having thus proved the priority of the Hebrew to every other language that has been spoken by men, we shall next consider its nature and genius; from which it will appear still more evidently to be the original language, neither improved nor debased by foreign idioms. The words of which it is composed are short, and admit of very little flexion. The names of places are descriptive of their nature, situation, accidental circumstances, &c. Its compounds are few, and inartificially joined together. In it we find few of those artificial affixes which distinguish the other cognate dialects; such as the Chaldean, Syrian, Arabian, Phœnician, &c. We find in it no traces of improvement from the age of Moses to the era of the Babylonish captivity. The age of David and Solomon was the golden period of the Hebrew tongue; and yet it would puzzle a critic of the nicest acumen to discover much improvement even during that happy era.

It has been observed above, that the language of Abraham and that of the Chasidim or Chaldeans were originally the same; and I am persuaded, that if an able critic should take the pains to examine strictly these two languages, and to take from each what may reasonably be supposed to have been improvements or additions since the age of Abraham, he will find intrinsic evidence sufficient to convince him of the truth of this position. There appear still in the Chaldean tongue great numbers of words the same with the Hebrew, perhaps as many as mankind had occasion for in the most early ages; and much greater numbers would

probably be found if both languages had come down to us entire. The construction of the two languages is indeed somewhat different; but this difference arises chiefly from the superior improvement of the Chaldean. While the Hebrew language was in a manner stationary, the Chaldean underwent progressive improvements; was mellowed by antitheses, rendered sonorous by the disposition of vocal sounds, acquired a copiousness by compounds, and a majesty by affixes and prefixes, &c. In process of time, however, the difference became so great, that the Israelites did not understand the Chaldean language at the era of the Babylonish captivity. This much the prophet intimates, when he promises the pious Jews protection "from a fierce people; a people of a deeper speech than they could perceive; of a stammering tongue, that they could not understand."

The priority of the Chaldeans' tongue is indeed contended for by very learned writers. Camden calls it the mother of all languages; and most of the fathers were of the same opinion. Amira has made a collection of arguments, not inconsiderable, in favour of it; and Myriceus, after him, did the same. Erpenius, in his Oration for the Hebrew tongue, thought the argument for it and the Chaldean so equal, that he did not choose to take upon him to determine the question.

Yet, if we anatomize the Hebrew language in their manner, we shall reduce it to a very great simplicity; we shall confine it to a few names of things, persons, and actions; we shall make all its words monosyllables, and give it the true characters of an original tongue. If at the same time we reflect on the small number of radical words in that dialect, we shall be more and more convinced of its originality. This originality is still further proved, in consequence of its simplicity, its purity, its energy, its fecundity of expressions and significations. In all these, notwithstanding its paucity of words, it excels the vast variety of other languages

gunges which are its cognate dialects. To these we may add the significancy of names, both of men and brutes; the nature and properties of the latter of which are more clearly and more fully exhibited by their names in this than in any other language hitherto known. Besides, its well-authenticated antiquity and the venerable tone of its writings surpass any thing left upon record in any other dialect now extant in the world. These extraordinary qualities excite our admiration at present under every disadvantage; and from this circumstance we may infer its incomparable beauty in the age of the Jewish legislator, and what effects it would naturally produce, could we know it now as it was spoken and written in the days of David and Solomon.

As far, however, as we understand it in its present mutilated condition, and are able to judge of its character from those few books that have come down to our time, we plainly perceive that its genius is simple, primitive, natural, and exactly conformable to the characters of those uncultivated patriarchs who used it themselves, and transmitted it to their descendants in its native purity and simplicity. Its words are comparatively few, yet concise and expressive; derived from a very small number of radicals, without the artificial composition of modern languages. No tongue, ancient or modern, can rival it in the happy and rich fecundity of its verbs, resulting from the variety and significancy of its conjugations; which are so admirably arranged and diversified, that, by changing a letter or two of the primitive, they express the various modes of acting, suffering, motion, rest, &c. in such a precise and significant manner, that frequently in one word they convey an idea, which in any other language would require a tedious paraphrase. These positions might easily be illustrated by numerous examples; but to the Hebrew scholar these would be superfluous, and to most others neither interesting nor

entertaining. Yet all these striking and peculiar excellencies combined cannot fail to demonstrate the beauty, the stability, and the originality, of the Hebrew tongue.

The Arabic language is evidently one of the sister dialects of the Hebrew; but was, in process of time, greatly transformed and altered from its simple unsophisticated state. The Arabians were divided into many different tribes; a circumstance which naturally produced many different dialects. These, however, were not of foreign growth. No foreign enemy ever conquered those independent hordes. The Persians, Greeks, and Romans, sometimes attempted to invade their territories; but the roughness of the ground, the scarcity of forage, the penury of water, and their natural bravery, always protected them. They were indeed once invaded by the Abyssinians or Ethiopians with some show of success; but these invaders were in a short time expelled the country. The language, of consequence, was never adulterated with foreign words or exotic phrases and idioms. Whatever augmentations or improvements it received were derived from the genius and industry of the natives, and not from adventitious or imported acquisitions. From this circumstance we may justly infer, that the Arabian tongue was a long time stationary, and of course differed in no considerable degree from its Hebrew archetype. The learned Schultens, in his Commentary on Job, hath shewn, to the conviction of every candid inquirer, that it is impossible to understand that sublime composition without having recourse to the Arabic idioms. That patriarch was a Chuzite. His country might be reckoned a part of Arabia. His three friends were actually Arabians, being the descendants of Ishmael and Esau. His country bordered upon that of the predatory Chaldeans, who were an Arabian banditti. When we consider all these circumstances *in cumulo*, we are strongly inclined to believe that the

book

book of Job was actually written in Arabic, as the language stood at that period; which, according to the most probable opinion, could not have been later than the age of Moses. The learned are generally agreed that this whole book, the three first chapters excepted, is a poetical composition, replete with the most brilliant and most magnificent imagery, the boldest, the justest, and most gorgeous, tropes and allusions, and a grandeur of sentiment wholly divine. Whoever has read the poetical compositions of the modern Arabians, on divine subjects, with any degree of taste, will discover a striking similarity both of diction and sentiment. Be this as it may, there is no reason to conclude that the Arabic dialect deviated much from the Hebrew standard prior to the Christian era.

The Chaldean, Phœnician, Ethiopian or Abyssinian, and Egyptian, languages, are all cognates of the original Hebrew, and have a very strict connection and analogy among each other; since what is observed relating to one of them may, without the least straining, be extended to them all.

The Chaldeans, or Chasidim, as they are always called in scripture, were the descendants of Chesed the son of Nahor, the brother of Abraham. The descendants of this patriarch drove the Cushim or Arabians out of Babylonia, and possessed themselves of that country at a very early period. As these Chasidim or Chaldeans were the posterity of Nahor, the descendant of Heber, they undoubtedly spoke the original Hebrew tongue as well as the other branches of that family. But, being an ingenious inventive people, they seemed to have polished their language with much care and delicacy of taste.

The only genuine remains of the ancient Chaldaic language are to be found in the Hebrew scriptures; and those are contained in two hundred and sixty-eight verses, of which we have two hundred in Daniel, reaching from verse fourth chapter second to chapter

eighth exclusive; in Ezra sixty-seven, in chapter 4th, 17 verses; chapter 5th, the same number; chapter 6th, 18 verses; and in chapter 7th, 15; in Jeremiah, chapter 10th, there is extant only one verse. From these fragments, compared with the Hebrew, it plainly appears, that the difference between that language and the Chaldaic is scarcely equal to that between the Doric and Ionic dialects of the Greek.

The Phœnician language is known to have been that of the ancient Canaanites. That this was one of the ancient dialects, and consequently a cognate of the Hebrew, is universally acknowledged. Mr. Bochart has in a manner demonstrated this point, by deriving almost all the names of the Phœnician colonies from the Hebrew, upon the supposition that the dialect of those people was closely connected with that tongue. St. Augustine, *de Civitate Dei*, has observed, that even in his time many of the vulgar in the neighbourhood of Carthage and Hippo spoke a dialect of the old Punic which nearly resembled the Hebrew. Procopius, *de bello Goth.* informs us, that there existed even in his days, in Africa, a pillar with this inscription in Hebrew, "We flee from the face of Joshua the robber, the son of Nun." The names of all the ancient cities built by the Carthaginians on the coast of Africa are easily reducible to a Hebrew original. The Carthaginian names of persons mentioned in the Greek and Latin history, such as Himilco, Hamilcar, Asdrubal, Hannibal, Hanno, Dido, Annah or Hannah, Sophonisba, Gisgo, Maharbal, Adherbal, &c. are evidently of Hebrew extraction.

The ancient language of the Ethiopians was the Chaldean. The Babylonian Cushim was Chaldaic, and of consequence that of the Ethiopian Cushim was the same. We may therefore rest assured, that, whatever changes the Ethiopian dialect may have undergone in the course of three thousand years, it was originally Chaldaic. Scaliger informs us, that the Ethiopians

opians call themselves Chaldeans; and that, says he, not without reason, because, of those many sacred and profane books which are extant among them, the most elegant and most beautiful are written in a style near that of the Chaldean or Assyrian. Marianus Victorius, who was the first that reduced the Ethiopic tongue to the rules of grammar, tells us in his Proæmium, "that the Ethiopians call their tongue Chaldaic; that it springs from the Babylonian; and is very like the Hebrew, Syriac, and Arabic: at the same time (he concludes) that the language may be easily learned by those who are masters of the Hebrew." The learned Bochart, and Bishop Walton, are clearly of the same opinion.

The language of Egypt appears to be one of the sister dialects of the Hebrew, Phœnician, Arabic, Chaldaic, &c. Yet the origin of that people, their language, religion, laws, and institutions, have been so warped and confounded, both by their own historians and those of other countries, that one is scarcely able to determine what to believe or what to reject; but because Egypt is generally thought to have been the native land of hieroglyphics, and because many are of opinion that hieroglyphical characters were prior to alphabetical, I shall hazard a few conjectures with respect to that species of writing.

The end of speech in general is to enable men to communicate their thoughts and conceptions one to another when present; the use of writing is to perform the same office when people are at so great a distance that vocal sounds cannot mutually reach them. Hieroglyphics are said to have been invented to supply this defect. The most ancient languages were every where full of tropes and figures borrowed from sensible objects. As in that stage of society men have not learned to abstract and generalize, all their ideas are borrowed from such objects as most forcibly strike their senses. This circumstance would naturally suggest

gest to savages the idea of conveying their sentiments to each other, when absent, by delineations of corporeal objects. Thus, if a savage asked a loan of his friend's horse, he might find means to have conveyed to him the figure of that animal; and so of others. This was the very lowest species of ideal communication, and has been styled picture-writing.

Necessity would soon impel our savage correspondents to fabricate a method more extensively useful, which would likewise be suggested by the constant use of the metaphorical mode of speech. Some savage leader, more sagacious than the vulgar herd, would observe that certain sensible objects were fitted, according to the rules of analogy, to represent certain human passions, and even some abstract ideas; and this would be readily enough adopted by the herd as a new improvement. In this case *horn* might be the emblem of power, a *sword* of bravery, *lion* of fury, a *fox* of cunning, a *serpent* of malice, &c. By and by artificial signs might be contrived to express such ideas as could not readily be denoted by bodily objects. This might be called symbolical writing. Such was the foundation of the Chinese characters; and hence that prodigious number of letters of which the written language of that people is composed. Farther they could not proceed, notwithstanding their boasted inventive powers; and farther, we believe, no nation ever did proceed, who had once upon a time no other characters but hieroglyphical. The Mexicans had arrived at the very lowest stage of hieroglyphical writing, but had not taken one step towards alphabetical. The Hurons employ hieroglyphical symbols, but never entertained a single idea of alphabetical. Hieroglyphical characters are the images of objects conveyed to the mind by the organs of vision; alphabetic are arbitrary artificial marks of sound, accommodated by compact to convey to the mind the ideas of objects by the organs
of

of hearing. In a word, there is not the least analogy between these two species to conduct from the one to the other: it is therefore evident, that hieroglyphical characters were never the vulgar channels of ideal conveyance among civilized people.

The Orientals are, at this day, extravagantly devoted to allegory and fiction. Plain unadorned truth with them has no charms. Hence that extravagant medley of fables and romance with which all antiquity is replete, and by which all ancient history is disguised and corrupted. Every doctrine of religion, every precept of morality, was tendered to mankind in parables and proverbs. Hence, says the scripture, to understand a proverb, the words of the wise, and their dark sayings. The eastern sages involved their maxims in this enigmatical dress for several reasons: to fix the attention of their disciples; to assist their memory; to gratify their allegorical taste; to sharpen their wit and exercise their judgment; and sometimes perhaps to display their own acuteness, ingenuity, and invention.

It was among the ancients an universal opinion, that the most sacred arcana of religion, morality, and the sublime sciences, were not to be communicated to the uninitiated rabble. For this reason every thing sacred was involved in allegorical darkness.

From this deduction we might conclude, that this species of writing was an adventitious mode in Egypt, peculiar to the priests, and employed chiefly to exhibit things sacred; and that among all civilized people it did not supersede the use of alphabetical characters, nor did the use of the latter originate from the former. When alphabetical letters were invented, if indeed they were a human invention, they were antecedent to the other in use and extent. The Egyptian priests alone knew the true import of those sacred symbols; and communicated that knowledge first to their own children from generation to generation, then to the initiated, and last of all to the grandees of the nation,

all of whom were indeed initiated. The hieroglyphics of Egypt were not then the symbols of any sacred occult language; but signs invented by the priests and prophets, or wise men, in order to represent their deities, the attributes and perfections of their deities, and the mysterious arcana of their religion, and many other circumstances relating to objects of importance, which were deemed either too sacred or too important to be imparted to the vulgar.

The Persian language is divided into the ancient and modern; the former of which is at this day very imperfectly understood; but the latter is at present one of the most expressive, and at the same time one of the most highly polished, in the world.

The late learned and laborious Sir William Jones was confident that the ancient Persian was a cognate dialect of the Chaldean, Hebrew, Arabic, Phœnician, &c. and that the oldest languages of Persia were the Chaldaic and Sanscrit: and that when they had ceased to be vernacular, the Pahlavi and Zend were deduced from them respectively, and the Parsi either from the Zend, or immediately from the dialect of the Brahmans: but all had perhaps a mixture of Tartarian; for the best lexicographers assert, that numberless words in ancient Persian are taken from the Cimmerians. With respect to the last of these, we cannot help being of opinion, that colonies of people from the neighbourhood of Persia did transport themselves into Crim Tartary, and perhaps into Europe. These colonists brought along with them those vocables which still occur in their dialect. Emigrants from those quarters must have found their way into Scandinavia, since numberless Persian words are still current in those regions. Perhaps Odin and his followers emigrated from the neighbourhood of Media and Persia, and brought with them the dialect of the nations from whose country they had taken their departure.

The modern Persian tongue is partly Arabic and partly Persian, though the latter generally has the ascendant. The former is nervous, impetuous, and masculine; the latter is flowing, soft, and luxuriant. There is a great resemblance between the Persian and English languages in the facility and simplicity of their form and construction: the former, as well as the latter, has no difference of terminations to mark the gender either in substantives or adjectives; all inanimate things are neuter; and animals of different sexes have either different names, or are distinguished by the words *ner* male, and *made* female. We must not here omit to put the reader in mind of the vast utility of the Arabian and Persian languages. Numberless events are preserved in the writings of the orientals which were never heard of in Europe, and must have for ever lain concealed from the knowledge of its inhabitants, had not these two tongues been studied and understood by the natives of this quarter of the globe. This acquisition has laid open to Europe all the treasures of oriental learning, and has enriched the minds of Britons with Indian science, as much as the produce of those regions has increased their wealth and enervated their constitution.

The Sanscrit, though one of the most ancient languages, was little known even in Asia, till about the middle of the present century. Since that period, by the indefatigable industry of the late very learned and ingenious Sir William Jones, and the other worthy members of that society of which he had the honour to be president, that noble and ancient language has at length been brought to light; and from it vast treasures of oriental knowledge will be communicated both to Europe and Asia; knowledge which, without the exertions of that happy establishment, must have lain concealed from the researches of mankind to the end of the world.

The Sanscrit language has for many centuries lain concealed in the hands of the bramins of Hindostan. It is by them deemed sacred, and is of consequence confined solely to the offices of religion. Its name imports the perfect language; or, according to the eastern style, the language of perfection.

The grand source of Indian literature, and the parent of almost every dialect from the Persian gulph to the China seas, is the Sanscrit; a language of the most venerable and most remote antiquity, which, though at present shut up in the libraries of the bramins, and appropriated solely to the records of their religion, appears to have been current over most of the oriental world. Accordingly traces of its original extent may be discovered in almost every district of Asia. Those who are acquainted with that language have often found the similitude of Sanscrit words to those of Persian and Arabic, and even of Latin and Greek; and that not in technical and metaphorical terms, which refined arts and improved manners might have occasionally introduced, but in the main groundwork of language, in monosyllables, the names of numbers, and appellations of such things as would be first discriminated on the immediate dawn of civilization.

This affords a presumption that the Sanscrit was one of those original dialects which were gradually produced among the descendants of Noah, in proportion as they gradually receded from the centre of population. What branch or branches of that family emigrated to Hindostan it is not easy to determine. That they were a party of the descendants of Shem is most probable, because the other septes of his posterity settled in that neighbourhood. The sum then is, that the Hindoos were a colony consisting of the descendants of the patriarch Shem.

The language of Bengal is derived from the Sanscrit, and is in most common use in the southern parts
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of Hindostan. Though most of the ancient oriental tongues are read from right to left, like the Hebrew, Chaldaic, Arabic, &c. yet such as properly belong to the whole continent of India proceed from left to right, like those of Europe. The Arabic, Persian, &c. are the grand sources whence the former method has been derived; but, with these, the numerous original dialects of Hindostan have not the smallest connection or resemblance. The great number of letters, the complex mode of combination, and the difficulty of pronunciation, are considerable impediments to the study of the Bengal language; and the carelessness and ignorance of the people, and the inaccuracy of their characters, aggravate these inconveniencies. Many of their characters are spurious; and these, by long use and the hurry of business, are now almost naturalized into their mother-tongue.

The language of the Chinese is totally different from those of all other nations, and bears very strong signatures of an original tongue. All its words are monosyllabic, and compositions and derivations are altogether unknown. Their nouns and verbs admit of no flexions: in short, every thing relating to their idioms is peculiar, and incapable of being compared with any other dialect spoken by any civilized people. Most barbarous languages exhibit something that resembles an attempt towards those diacritical modifications of speech; whereas the Chinese, after a space of four thousand years, have not advanced one step beyond the very first elements of ideal communication. This circumstance is a plain demonstration that they did not emigrate from that region where the primitive race of mankind is thought to have fixed its residence. Some have imagined, and with good reason, that they are a Tartarian race, which, breaking off from the main body of that numerous and widely-extended people, directed their march towards the south-east. There, falling in with delightful and fertile plains
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which their posterity now inhabit, they found themselves accommodated so much to their liking, that they dropped all desire of changing their habitations. The country of China is, indeed, so environed with mountains, deserts, and seas, that it would have been difficult for men in their primitive state to have emigrated into any of the neighbouring regions. Thus secluded from the rest of mankind, the Chinese, in all probability, were left to the strength of their own inventive powers to fabricate a language, as well as the other arts and improvements necessary for the support and convenience of life.

It is indeed obvious that their stock of vocables, when they emigrated from Tartary, was neither ample nor properly accommodated to answer the purposes of the mutual conveyance of ideas. With this slender stock, however, they seem to have been satisfied; for it does not appear that any additions were afterwards made to that which was originally imported. Instead of framing a new race of terms by compounding their primitive ones; instead of diversifying them by inflections, or multiplying them by derivatives, as is done in every other language; they rather chose to retain their primitive words, and, by a variety of modifications, introduced upon their orthography or pronunciation, to accommodate them to a variety of significations. Were it possible to scrutinize all the Tartarian dialects, and to reduce them to their primitive monosyllabic character, perhaps the original language of the Chinese might be investigated and ascertained. We know that attempts have been made to compare it with some of the other Asiatic languages, especially the Hebrew: this labour has, however, proved unsuccessful, and no primeval identity has been discovered. Before this comparison could be instituted with the most distant prospect of success, the language last mentioned must be stripped of all its adventitious qualities; and not only so, but it must be reduced to the monosyllabic

monosyllabic tone, and then contrasted with the Chinese monosyllables; an undertaking which we are persuaded would not be readily executed. After all, we are convinced that no resemblance of any importance would be discovered.

The Chinese language must then have been a Tartarian dialect, as the people themselves were colonists from Tartary. It has been observed above, that those people have not hitherto found out the art of composition of words. This is the more surprising, when we consider that, in the characters which form their written language, they employ many compositions. For example, the character by which they represent *misfortune*, is composed of one hieroglyphic which represents a *house*, and another which denotes *fire*; because the greatest misfortune that can befall a man is to have his house on fire. With respect to language that they use in speech, though they very often employ many words to express one thing, yet they never run them together into one word, making certain changes upon them that they may incorporate the more conveniently, but always preserve them entire and unaltered.

The whole number of words in the Chinese language does not exceed twelve hundred: the nouns are but three hundred and twenty-six. It must certainly appear surprising, that a people whose manners are so highly polished and refined, should be able to express so many things as must of necessity attend such a course of life by so small a number of words, and those too monosyllables. The difficulties which attend this singular mode must be felt almost every instant; circumstances which, according to the ordinary course of things, should have induced them to attempt both an augmentation of the number of their words and an extension of those which they had by composition and derivation. We learn from Du Halde that the Chinese have two different dialects: the one vulgar, which is spoken by the vulgar, and varies according

ing to the different provinces; the other is called the Mandarin language, and is current only among the learned. The latter is properly that which was formerly spoken at court in the province of Kiang-nan, and gradually spread among the polite people in the other provinces. Accordingly, this language is spoken with more elegance in the provinces adjoining to Kiang-nan than in any other part of the kingdom. By slow degrees it was introduced into all parts of the empire, and consequently became the universal language of China.

The learned have long held it up as the primary dialect, because, say they, it bears all the signatures of an original unimproved language. On the contrary, however, nothing appears more ingeniously *artificial*. It is universally allowed that, in its structure, arrangement, idioms, and phraseology, it resembles no other language. Is not every learned man now convinced that all the Asiatic languages yet known discover unequivocal symptoms of their cognation and family resemblance? The Ethiopians, Chaldeans, Arabians, Persians, Egyptians, Hebrews, Phœnicians, the Brahmans, Bengalese, the Hindoos bordering upon China, all speak only different dialects of one language, varying from the original in dialect only, some in a greater some in a lesser degree: why should the Chinese alone stand altogether insulated and unallied?

The languages of the North all wear congenial features. The Tartar, or Tartar dialects of every clan, of every canton, of every denomination, exhibit the most palpable proofs of a near affinity: the Gothic and Slavonian dialects, which pervade a great part of Europe and some parts of Asia, are obviously brethren, and may be easily traced up to an Asiatic original. Even some of the American jargon dialects contain vocables which indicate an Asiatic or European original. Had the language of the Chinese been the original language, a resemblance must have still existed

isted between it and its descendants. If it had originated from any other language, it would have retained some characteristic features of its parent archetype. But, as neither of these are to be found in the fabric of it, the conclusion must be, that it is a language entirely different from all other tongues; that it is constructed upon different principles, descended from different parents, and framed by different artists.

Though the number of words in the Chinese language does not amount to above twelve hundred; yet that small number of vocables, by their artificial management, is sufficient to enable them to express themselves upon every subject. Without multiplying words, the sense is varied almost in infinitum by the variety of the accents, inflections, tones, aspirations, and other changes of the voice and enunciation; circumstances which make those who do not thoroughly understand the language, frequently mistake one word for another.

The art of joining the Chinese monosyllables together is extremely difficult, and requires a very long and laborious course of study. As they have only figures by which they can express their thoughts, and have no accents in writing to vary the pronunciation, they are obliged to employ as many different figures or characters as there are different tones, which give so many different significations to the same word. Besides, some single characters signify two or three words, and sometimes even a whole period. For example, to write these words, *Good morrow, sir*, instead of joining the characters which signify good and morrow with that of sir, a different character must be used, and this character alone expresses these three words. This circumstance greatly contributes to multiply the Chinese characters.

The characters of Cochin China, of Tong-king, of Japan, are the same with those of the Chinese, and signify the same things; though, in speaking, these nations do not express themselves in the same manner:

ner: of consequence the language of conversation is very different, and they are not able to understand each other; while, at the same time, they understand each other's written language, and use all their books in common. The number of their characters amount to eighty thousand; and the man who knows the greatest number of them is of course the most learned. The Chinese characters are not simple letters without any signification, like those of the Europeans and other Asiatics; but, when they are joined together, they are so many hieroglyphics, which form images and express thoughts.

The Chinese have ever looked upon themselves as greatly superior to the rest of mankind. In ancient times they entertained such contemptible notions of foreigners, that they scorned to have any further commerce with them than to receive their homage. They were indeed, at a very early period, highly revered by the Indians, Persians, and Tartars. In consequence of this veneration, they looked upon themselves as the favourites of heaven. They imagined they were situated in the middle of the earth, in a kind of paradise, in order to give laws to the rest of mankind. Other men they looked upon with contempt and disdain, and deemed them deformed in body and defective in mind, cast out into the remote corners of the world as the dross and refuse of nature. They boasted that themselves only had received from God rational souls and beautiful bodies, in order to qualify them for being sovereigns of the species.

Such are the sentiments of the Chinese; and with such sentiments it is by no means surprising that their improvements in language, in writing, and other appendages of the belles lettres, have not been proportioned to their progress in mechanics. When people are once fully persuaded that they have already arrived at the summit of perfection, it is natural for them to sit down contented, and solace themselves with the
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idea of their own superior attainments. The Chinese had early entertained an exalted opinion of their own superiority to the rest of mankind; and therefore imagined that they had already carried their invention to the *ne plus ultra* of perfection; the consequence was, that they would make no exertions to carry them higher.

The Chinese, for the space of three thousand years, had scarcely any intercourse with the rest of mankind. This was the consequence of their insulated situation.-- They, of course, compared themselves with themselves; and, finding that they excelled all their barbarian neighbours, they readily entertained an opinion that they excelled all the rest of mankind in an equal proportion. This conceit at once filled the emotions of ambition, and deprived them of all opportunities of learning what was going forward in other parts of the world.

Of all the nations whose memory history has transmitted to us, none have been so eminently distinguished for their language, as well as acquaintance with the polite arts, as the Greeks; nor are we as yet acquainted with a language possessed of so many advantages, with so few defects, as that which they used, and which continues still to be known by their name.-- The necessary connection between the progress of knowledge and the improvement of language has been just explained; so that it will not be surprising to find their progress in the one keep pace with that of the other: but it will be of utility to point out some advantages which that distinguished people possessed, which other nations, perhaps not less distinguished for talents or taste, have not enjoyed, which have contributed to render their language the most universally admired in ancient as well as in modern times.

The original inhabitants of Greece, who were gross savages, and whose language of course would be very rude and narrow, were first tamed by the Pelasgi, an eastern or an Egyptian tribe. From the east it is well

known that arts and sciences were spread over the rest of the world, and that Egypt was one of the countries first civilized. The language therefore imported into Greece by the Pelasgi would be pure from the fountain head, and much more perfect in its structure than if it had been transmitted through many nations. But this was not the only circumstance highly fortunate for the Greek language. Before it had time to be fully established among the people, its asperities, which it had in common with the other dialects of the east, were polished away by such a succession of poets, musicians, philosophers, and legislators, from different countries, as never appeared in any other nation at a period so early as to give their genius and taste its full influence. In this respect, no people were ever so eminently distinguished as the ancient Greeks, who had their Orpheus, their Linus, their Cecrops, and their Cadmus, who introduced their different improvements at a time when the nation had no standard of taste formed by itself. Hence the original sounds of the Greek language are the most harmonious, and the most agreeable to the ear, of any that have been hitherto invented. They are indeed agreeable to every person who hears them, even when the meaning of the words is not understood; whereas almost all other languages, till they are understood, appear, to an ear which has not been accustomed to them, jarring and discordant. This is the fundamental excellence of that justly-admired language; nor have the people failed to improve this to the utmost of their power, by many aids of their own invention. The Greek language is of the transpositive kind: but a people so lively, so acute, and so loquacious, could ill bear the ceremonious restraint to which that mode of language naturally subjected them; and have therefore, by various methods, freed it in a great measure from the stiffness which that produced. In inflecting their nouns and verbs, they sometimes prefix a syllable, and sometimes
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add one; which, besides the variety that it gives to the sounds of the language, adds greatly to the distinctness, and admits of a more natural arrangement of the words than in the Latin, and of consequence renders it much fitter for the easiness of private conversation: and indeed the genius of the people so far prevailed over the idiom of the language, as to render it, in the age of its greatest perfection, capable of almost as much ease, and requiring almost as little transposition of words, as those languages which have been called analogous. But as those nations who spoke this language were all governed by popular assemblies, and as no authority could be obtained among them but by a skill in rhetoric and the powers of persuasion; it became necessary for every one, who wished to acquire power or consideration in the state, to improve himself in the knowledge of that language, in the use of which alone he could expect honours or reputation. Hence it happened, that while the vivacity of the people rendered it easy, the great men studiously improved every excellence that it could reap from its powers as a transpositive language; so that, when brought to its utmost perfection by the amazing genius of the great Demosthenes, it attained a power altogether unknown to any other nation. Thus happily circumstanced, the Greek language arrived at that envied pre-eminence which it still justly retains. From the progress of arts and sciences; from the gaiety and inventive genius of the people; from the number of free states into which Greece was divided; and from the natural communication that took place between these states, which excited in the strongest degree the talents of the people; it acquired a copiousness unknown to any ancient language, and excelled by few of the moderns. In point of harmony of numbers, it is altogether unrivalled; and, on account of the ease as well as dignity which, from the causes above mentioned, it acquired, it admits of perfection in a greater number of particu-

lar kinds of composition than any other language known.--The irresistible force and impetuosity of Demosthenes seems not more natural to the genius of the language, than the more flowery charms of Plato's calm and harmonious cadences, or the unadorned simplicity of Xenophon; nor does the majestic pomp of Homer seem to be more agreeable to the genius of the language in which he wrote, than the more humble strains of Theocritus, or the laughing festivity of Anacreon: equally adapted to all purposes, when we peruse any of these authors, we would imagine the language was most happily adapted for his peculiar style alone. The same powers it likewise, in a great measure, possessed for conversation; and the dialogue seems not more natural for the dignity of Sophocles or Euripides, than for the more easy tenderness of Menander, or buffoonery of Aristophanes. With all these advantages, however, it must be acknowledged, that it did not possess that unexceptionable clearness of meaning which some analogous languages enjoy, or that characteristic force which the emphasis properly varied has power to give, were not these defects counterbalanced by other causes which we shall afterwards point out.

The Romans, a people of fierce and warlike dispositions, for many ages during the infancy of their republic, more intent on pursuing conquests and military glory than in making improvements in literature or the fine arts, bestowed little attention to their language. Of a disposition less social or more phlegmatic than the Greeks, they gave themselves no trouble about rendering their language fit for conversation; and, it remained strong and nervous, but, like their ideas, was limited and confined. More disposed to command respect by the power of their arms than by the force of persuasion, they despised the more effeminate powers of speech: so that, before the punic wars, their language was perhaps more reserved and uncourtly than
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any other at that time known. But after their rival Carthage was destroyed, and they had no longer that powerful curb upon their ambition; when riches flowed in upon them by the multiplicity of their conquests; --luxury began to prevail, the stern-austerity of their manners to relax, and selfish ambition to take place of that disinterested love for their country so eminently conspicuous among all orders of men before that period. Popularity began then to be courted: ambitious men, finding themselves not possessed of that merit which insured them success with the virtuous senate, amused the mob with artful and seditious harangues; and by making them believe that they were possessed of all power, and had their sacred rights encroached upon by the senate, led them about at their pleasure, and got themselves exalted to honours and riches by these insidious arts. It was then the Romans first began to perceive the use to which a command of language could be put. Ambitious men then studied it with care, to be able to accomplish their ends; while the more virtuous were obliged to acquire a skill in this, that they might be able to repel the attacks of their adversaries. Thus it happened, that in a short time that people, from having entirely neglected, began to study their language with the greatest assiduity; and as Greece happened to be subjected to the Roman yoke about that time, and a friendly intercourse was established between these two countries, this greatly conspired to nourish in the minds of the Roman commonwealth a taste for that art of which they had lately become so much enamoured. Greece had long before this period been corrupted by luxury; their taste for the fine arts had degenerated into unnecessary refinement; and all their patriotism consisted in popular harangues, and unmeaning declamation. Oratory was then studied as a refined art; and all the subtleties of it were taught by rule, with as great care as the gladiators were trained up in Rome. But, while they were

were thus idly trying who should be the lord of their own people, the nerves of government were relaxed, and they became an easy prey to every invading power. In this situation they became the subjects, under the title of the allies, of Rome, and introduced among them the same taste for haranguing which prevailed among themselves. Well acquainted as they were with the powers of their own language, they set themselves with unwearied assiduity to polish and improve that of their new masters: but with all their assiduity and pains, they never were able to make it arrive at that perfection which their own language had acquired; and, in the Augustan age, when it had arrived at the summit of its glory, Cicero bitterly complains of its want of copiousness in many particulars.

But, as it was the desire of all who studied this language with care to make it capable of that stately dignity and pomp necessary for public harangues, they followed the genius of the language in this particular, and in a great measure neglected those smaller delicacies which form the pleasure of domestic enjoyment; so that, while it acquired more copiousness, more harmony, and precision, it remained stiff and inflexible in common conversation: nor could the minute distinction of nice grammatical rules be ever brought down to the apprehension of the vulgar; whence the language spoken among the lower class of people remained rude and unpolished even to the end of the monarchy. The Huns who over-ran Italy, incapable of acquiring any knowledge of such a difficult and abstruse language, never adopted it; and the native inhabitants, being made acquainted with a language more natural and easily acquired, quickly adopted that idiom of speech introduced by their conquerors, although they still retained many of those words which the confined nature of the barbarian language made necessary to allow them to express their ideas. And thus it was that the language of Rome, that proud mistress of the

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world, from an original defect in its formation, although it had been carried to a perfection in other respects far superior to any northern language at that time, easily gave way to them, and in a few ages the knowledge of it was lost among mankind: while, on the contrary, the more easy nature of the Greek language has been still able to keep some slight footing in the world, although the nations in which it has been spoken have been subjected to the yoke of foreign dominions for upwards of two thousand years, and their country has been twice ravaged by barbarous nations, and more cruelly depressed than ever the Romans were.

From the view thus given of the Latin language, it appears evident, that its idiom was more strictly transpositive than that of any other language yet known, and was attended with all the defects to which that idiom is naturally subjected: nor could it boast of such favourable alleviating circumstances as the Greek, the prevailing sounds of the Latin being far less harmonious to the ear; and although the formation of the words are such as to admit of full and distinct sounds, and so modulated as to lay no restraint upon the voice of the speaker; yet, to a person unacquainted with the language, they do not convey that enchanting harmony so remarkable in the Greek language. The Latin is stately and solemn; it does not excite disgust; but at the same time it does not charm the ear, so as to make it listen with delightful attention. To one acquainted with the language indeed, the nervous boldness of the thoughts, the harmonious rounding of the periods, the full solemn swelling of the sounds, so distinguishable in the most eminent writers in that language which have been preserved to us, all conspire to make it pleasing and agreeable. In these admired works we meet with all its beauties, without perceiving any of its defects; and we naturally admire, as perfect, a language which is capable of producing such excellent

works. Yet, with all these seeming excellencies, this language is less copious, and more limited in its style of composition, than many modern languages; far less capable of precision and accuracy than almost any of these; and infinitely behind them all in point of easiness in conversation. Of the compositions in that language which have been preserved to us, the Orations of Cicero are best adapted to the genius of the language, and we there see it in its utmost perfection. In the Philosophical Works of that great author we perceive some of its defects; and it requires all the powers of that great man to render his Epistles agreeable, as these have the genius of the language to struggle with. Next to oratory, history agrees with the genius of this language; and Cæsar, in his Commentaries, has exhibited the language in its purest elegance, without the aid of pomp or foreign ornament. Among the poets, Virgil has best adapted his works to his language. The flowing harmony and pomp of it is well adapted for the epic strain, and the correct delicacy of his taste rendered him perfectly equal to the task. But Horace is the only poet whose force of genius was able to overcome the bars which the language threw in his way, and succeed in lyric poetry. Were it not for the brilliancy of thoughts, and acuteness of the remarks, which so eminently distinguish this author's compositions, his odes would long ere now have sunk into utter oblivion. But so conscious have all the Roman poets been of the unfitness of their language for easy dialogue, that scarcely any of them, after Plautus and Terence, have attempted dramatic compositions in that language. Nor have we any reason to regret that they neglected this branch of poetry, as it is probable, if they had ever become fond of these, they would have been obliged to have adopted so many unnatural contrivances to render them agreeable, as would have prevented us from making that progress in the drama, which

which so particularly distinguishes the productions of modern times.

The modern Italian language, from an inattention too common in literary subjects, has been usually called a child of the Latin tongue; and is commonly believed to be the ancient Latin, a little debased by the mixture of the barbarous language of those people who conquered Italy. The truth is, the case is directly the reverse: for this language, in its general idiom and fundamental principles, is evidently of the analogous kind, first introduced by those fierce invaders, although it has borrowed many of its words, and some of its modes of phraseology, from the Latin, with which they were so intimately blended that this could scarcely be avoided; and, it has been from remarking this slight connection so obvious at first sight, that superficial observers have been led to draw this general conclusion, so contrary to fact.

When Italy was over-run with the Lombards, and the empire destroyed by these northern invaders, they, as conquerors, continued to speak their own native tongue. Fierce and illiterate, they would not stoop to the servility of studying a language so clogged with rules, and difficult of attainment, as the Latin would naturally be to a people altogether unacquainted with nice grammatical distinctions: while the Romans of necessity were obliged to study the language of their conquerors, as well to obtain some relief of their grievances by prayers and supplications, as to destroy that odious distinction which subsisted between the conquerors and conquered while they continued as distinct people. As the language of their new masters, although rude and confined, was natural in its order, and easy to be acquired, the Latins would soon attain a competent skill in it: and, as they bore such a proportion to the whole number of people, the whole language would partake somewhat of the general sound of the former: for, in spite of all their efforts to the

contrary, the organs of speech could not at once be made to acquire a perfect power of uttering any unaccustomed sounds; and as it behoved the language of the barbarians to be much less copious than the Latin, whenever they found themselves at a loss for a word, they would naturally adopt those which most readily presented themselves from their new subjects. Thus a speech in time was formed, somewhat resembling the Latin both in the general tenor of the sounds and in the meaning of many words: and as the barbarians gave themselves little trouble about language, and in some cases perhaps hardly knew the general analogy of their own language, it is not surprising if their new subjects should find themselves sometimes at a loss on that account: or if, in these situations, they followed, on some occasions, the analogy suggested to them by their own: which accounts for the strange degree of mixture of heterogeneous grammatical analogy we meet with in the Italian as well as Spanish and French languages. The idiom of all the Gothic tongues is purely analogous; and in all probability, before their mixture with the Latins and other people in their provinces, the several grammatical parts of speech followed the plain simple idea which that supposes; the verbs and nouns were all probably varied by auxiliaries, and their adjectives retained their simple unalterable state: but, by their mixture with the Latin, this simple form has been in many cases altered; their verbs became in some cases inflected; but their nouns in all these languages still retained their original form; although they have varied their adjectives, and foolishly clogged their nouns with gender, according to the Latin idioms. From this heterogeneous and fortuitous mixture of parts, results a language possessing almost all the defects of each of the languages of which it is composed, with few of the excellencies of either: for it has neither the ease nor precision of the analogous, nor the pomp and boldness of the transpositive,

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at the same time that it is clogged with almost as many rules, and liable to as great abuses.

These observations are equally applicable to the French and Spanish as to the Italian language. With regard to this last in particular, we may observe, that as the natural inhabitants of Italy, before the last invasion of the barbarians, were sunk and enervated by luxury, and that by depression of mind and genius which anarchy always produces, they had become fond of feasting and entertainments, and the enjoyment of sensual pleasures constituted their highest delight; so their language partook of the same debility as their body. The barbarians too, unaccustomed to the seductions of pleasure, soon fell from their original boldness and intrepidity, and, like Hannibal's troops of old, were enervated by the sensual gratifications in which a nation of conquerors unaccustomed to the restraint of government freely indulged. The softness of the air, the fertility of the climate, the unaccustomed flow of riches which they at once acquired, together with the voluptuous manner of their conquered subjects; all conspired to enervate their minds, and render them soft and effeminate. No wonder then, if a language new-moulded at this juncture should partake of the genius of the people who formed it; and, instead of participating of the martial boldness and ferocity of either of their ancestors, should be softened and enfeebled by every device which an effeminate people could invent. The strong consonants which terminated the words, and gave them life and boldness, being thought too harsh for the delicate ears of these sons of sloth, were banished, while sonorous vowels, which could be protracted to any length in music, were substituted in their stead. Thus the Italian tongue is formed flowing and harmonious, but destitute of those nerves which constitute the strength and vigour of a language: at the same time, the sounds are neither enough diversified, nor in themselves of such an agreeable

agreeable tone, as to afford great pleasure without the aid of musical notes; and the small pleasure which this affords is still lessened by the little variety of measure which the great similarity of the terminations of the words occasions. Hence it happens, that this language is fitted for excelling in fewer branches of literature than almost any other: and although we have excellent historians, and more than ordinary poets, in Italian, yet they labour under great inconveniencies, from the language wanting nerves and stateliness for the former, and sufficient variety of modulation for the latter. It is, more particularly on this account, altogether unfit for an epic poem: and though attempts have been made in this way by two men whose genius, if not fettered by the language, might have been crowned with success; yet these, notwithstanding the fame that with some they may have acquired, must, in point of poetic harmony, be deemed defective by every impartial person. Nor is it possible that a language which hardly admits of poetry without rhyme, can ever be capable of producing a perfect poem of great length; and, the stanza to which their poets have ever confined themselves, must always produce the most disagreeable effect in a poem where unrestrained pomp or pathos are necessary qualifications. The only species of poetry in which the Italian language can claim a superior excellence, is the tender tone of elegy: and here it remains unrivalled and alone; the plaintive melody of the sounds, and smooth flow of the language, being perfectly adapted to express that soothing melancholy which this species of poetry requires. On this account the plaintive scenes of the *Pastor Fido* of Guarini have justly gained to that poem an universal applause; although, unless on this account alone, it is perhaps inferior to almost every other poem of the kind which ever appeared. We must observe with surprise, that the Italians, who have fettered every other species of poetry with the severest

severest shackles of rhyme, have in this species shewed an example of the most unrestrained freedom; the happy effects of which ought to have taught all Europe the powerful charms attending it: yet with amazement we perceive, that scarce any attempt to imitate them has been made by any poet in Europe except by Milton in his *Lycidas*; no dramatic poet, even in Britain, having ever adopted the unrestrained harmony of numbers to be met with in this and many other of their best dramatic compositions.

Of all the languages which sprung up from the mixture of the Latins with the northern people on the destruction of the Roman empire, none of them approach so near to the genius of the Latin as the Spanish does. For, as the Spaniards have always been remarkable for their military pomp and dignity of mind, their language is naturally adapted to express ideas of that kind. Sonorous and solemn, it admits nearly of as much dignity as the Latin. For conversation, it is the most elegant and courteous language in Europe.

The humane and generous order of chivalry was first invented, and kept its footing longest, in this nation; and, although it ran at last into such a ridiculous excess as deservedly made it fall into universal disrepute, yet it left such a strong tincture of romantic heroism upon the minds of all ranks of people, as made them jealous of their glory, and strongly emulous of cultivating that heroic politeness, which they considered as the highest perfection they could attain. Every man disdained to flatter, or to yield up any point of honour which he possessed; at the same time, he rigorously exacted from others all that was his due. These circumstances have given rise to a great many terms of respect, and courteous condescension, without meanness or flattery, which give their dialogue a respectful politeness and elegance unknown to any other European language. This is the reason why the characters so finely drawn by Cervantes in *Don Quixote* are still
unknown

unknown to all but those who understand the language in which he wrote. Nothing can be more unlike the gentle meekness and humane heroism of the knight, or the native simplicity, warmth of affection, and respectful loquacity, of the 'squire, than the inconsistent follies of the one, or the impertinent forwardness and disrespectful petulance of the other, as they are exhibited in every English translation. Nor is it possible to represent so much familiarity, united with such becoming condescension in the one, and unfeigned deference in the other, in any other European language, as is necessary to paint these two admirable characters.

Although this language, from the solemn dignity and majestic elegance of its structure, is perhaps better qualified than any other modern one for the sublime strains of epic poetry; yet, as the poets of this nation have all along imitated the Italians by a most servile subjection to rhyme, they never have produced one poem of this sort, which in point of poesy of style deserves to be transmitted to posterity. And in any other species of poetry but this, or the higher tragedy, it is not naturally fitted to excel. But although the drama and other polite branches of literature were early cultivated in this country, and made considerable progress in it, before the thirst of gain debased their souls, or the desire of universal dominion made them forfeit that liberty which they once so much prized; since they became enervated by an overbearing pride, and their minds enslaved by superstition, all the polite arts have been neglected: so that, while other European nations have been advancing in knowledge, and improving their language, they have remained in a state of torpid inactivity; and their language has not arrived at that perfection which its nature would admit, or the acute genius of the people might have made us naturally expect.

It will perhaps by some be thought an unpardonable insult, if we do not allow the French the preference

ence of all modern languages in many respects. But so far must we pay a deference to truth, as to be obliged to rank it among the poorest languages in Europe. Every other language has some sounds which can be uttered clearly by the voice: even the Italian, although it wants energy, still possesses distinctness of articulation. But the French is almost incapable of either of these beauties; for in that language the vowels are so much curtailed in the pronunciation, and the words run one into another in such a manner, as necessarily to produce an indistinctness which renders it incapable of measure or harmony. From this cause, it is in a great measure incapable of poetic modulation, and rhyme has been obliged to be substituted in its stead; so that this poorest of all contrivances which has ever yet been invented to distinguish poetry from prose, admitted into all the modern languages when ignorance prevailed over Europe, has still kept some footing in the greatest part of these, rather through a deference for established customs than from any necessity. Yet, as the French language admits of so little poetic modulation, rhyme is in some measure necessary to it; and therefore this poor deviation from prose has been adopted by it, and dignified with the name of Poetry. But, by their blind attachment to this artifice, the French have neglected to improve so much as they might have done the small powers for harmony of which their language is possessed; and, by being long accustomed to this false taste, they have become fond of it to such a ridiculous excess, as to have all their tragedies, nay even their comedies, in rhyme. While the poet is obliged to enervate his language, and check the flow of composition, for the sake of linking his lines together, the judicious actor finds more difficulty in destroying the appearance of that measure, and preventing the clinking of the rhimes, than in all the rest of his task. After this, we shall not be surprised to find Voltaire attempt an epic poem in

this species of poetry; although the more judicious Fenelon in his *Telemaque* had shewn to his countrymen the only species of poesy that their language could admit of for any poem which aspired to the dignity of the epic strain. Madam Deshouliers, in her *Idyllie*, has shewn the utmost extent of harmony to which their language can attain in smaller poems: indeed in the tendernefs of an elegy, or the gaiety of a song, it may succeed; but, it is so destitute of force and energy, that it can never be able to reach the pindaric, or even perhaps the lyric strain,---as the ineffectual efforts even of the harmonious Rousseau, in his translation of the *Psalms of David* of this stamp, may fully convince us.

With regard to its powers in other species of composition, the sententious rapidity of Voltaire, and the more nervous dignity of Rousseau, afford us no small presumption, that, in a skilful hand, it might acquire so much force, as to transmit to futurity historical facts in a style not altogether unworthy of the subject. In attempts at pathetic declamation, the superior abilities of the composer may perhaps on some occasions excite a great idea; but this is ever cramped by the genius of the language: and although no nation in Europe can boast of so many orations where this grandeur is attempted; yet perhaps there are few who cannot produce more perfect, although more laboured, compositions of this kind.

But notwithstanding the French language labours under all these inconveniencies; although it can neither equal the dignity or genuine politeness of the Spanish, the nervous boldness of the English, nor the melting softness of the Italian; although it is destitute of poetic harmony, and so much cramped in sound as to be absolutely unfit almost for every species of musical composition; yet the sprightly genius of that volatile people has been able to surmount all these difficulties, and render it the language most generally esteemed, and most universally spoken, of any in Europe;

rope; for this people, naturally gay and loquacious, and fond to excess of those superficial accomplishments which engage the attention of the fair sex, have invented such an infinity of words capable of expressing vague and unmeaning compliment, now dignified by the name of politeness, that, in this strain, one who uses the French can never be at a loss; and as it is easy to converse more, and really say less, in this than in any other language, a man of very moderate talents may distinguish himself much more by using this than any other that has ever yet been invented. On this account, it is peculiarly well adapted to that species of conversation which must ever take place in those general and promiscuous companies, where many persons of both sexes are met together for the purposes of relaxation or amusement; and must of course be naturally admitted into the courts of princes, and assemblies of great personages; who, having fewer equals with whom they can associate, are more under a necessity of conversing with strangers, in whose company the tender stimulus of friendship does not so naturally expand the heart to mutual trust or unrestrained confidence. In these circumstances, as the heart remains disengaged, conversation must necessarily flag; and mankind in this situation will gladly adopt that language in which they can converse most easily without being deeply interested. On these accounts the French now is, and probably will continue to be, reckoned the most polite language in Europe, and therefore the most generally studied and known: nor should we envy them this distinction, if our countrymen would not weaken and enervate their own manly language, by adopting too many of their unmeaning phrases.

The English is perhaps possessed of a greater degree of excellence, blended with a greater number of defects, than any of the languages hitherto mentioned. As the people of Great-Britain are a bold, daring, and impetuous, race of men, subject to strong passions, and,

from the absolute freedom and independence which reigns amongst all ranks of people throughout this happy isle, little solicitous about controuling these passions: our language takes its strongest characteristical distinction from the genius of the people; and, being bold, daring, and abrupt, is admirably well adapted to express those great emotions which spring up in an intrepid mind at the prospect of interesting events. Peculiarly happy too in the full and open sound of the vowels, which form the characteristic tone of the language, and in the strong use of the aspirate H in almost all those words which are used as exclamations, or marks of strong emotions upon interesting occasions, that particular class of words called interjections have, in our language, more of that fulness and unrestrained freedom of tones, in which their chief power consists, and are pushed forth from the inmost recesses of the soul in a more forcible and unrestrained manner, than in any other tongue whatever. Hence it is more peculiarly adapted for the great and interesting scenes of the drama than any language that has yet appeared on the globe. Nor has any other nation ever arrived at that perfection which the English may justly claim in that respect; for, however faulty our dramatic compositions may be in some of the critical niceties which relate to this art,---in nervous force of diction, and in the natural expression of those great emotions which constitute its soul and energy, we claim, without dispute, an unrivalled superiority. Our language too, from the great intercourse that we have had with almost all the nations of the globe by means of our extensive commerce, and from the eminent degree of perfection which we have attained in all the arts and sciences, has acquired a copiousness beyond what any other modern language can lay claim to: and, even the most partial favourers of the Greek are forced to acknowledge, that in this respect it must give place to the English. Nor is it less happy in that facility of construction

construction which renders it more peculiarly adapted to the genius of a free people, than any other form of language. Of an idiom purely analogous, it has deviated less from the genius of that idiom, and possesses more of the characteristic advantages attending it, than any other language that now exists: for, while others, perhaps by their more intimate connection with the Romans, have adopted some of their transpositions, and clogged their speech with unnecessary fetters; we have preserved ourselves free from the contagion, and still retain the primitive simplicity of our language. Our verbs are varied by auxiliaries; our nouns remain free from the perplexing embarrassment of genders, and our pronouns mark this distinction where necessary with the most perfect accuracy; our articles also are freed from this unnatural incumbrance, and our adjectives preserve their natural freedom and independence. From these causes our language follows an order of construction so natural and easy, and the rules of syntax are so few and obvious, as to be within the reach of the most ordinary capacity. So that from this, and the great clearness and distinctness of meaning with which this mode of construction is necessarily accompanied, it is much better adapted for the familiar intercourse of private society, and liable to fewer errors in using it, than any other language yet known; and, on this account we may boast, that in no nation of Europe do the lower class of people speak their language with so much accuracy, or have their minds so much enlightened by knowledge, as in Great-Britain. What then shall we say of the discernment of those grammarians, who are every day echoing back to one another complaints of the poverty of our language on account of the few and simple rules which it requires in syntax? As justly might we complain of an invention in mechanics, which, by means of one or two simple movements, obvious to an ordinary capacity, little liable to accidents, and easily put in order

by the rudest hand, should possess the whole powers of a complex machine, which had required an infinite apparatus of wheels and contrary movements, the knowledge of which could only be acquired, or the various accidents to which it was exposed by using it be repaired, by the powers of an ingenious artist, as complain of this characteristic excellence of our language as a defect.

But, if we thus enjoy in an eminent degree the advantages attending an analogous language, we likewise feel in a considerable measure the defects to which it is exposed; as the number of monosyllables with which it always must be embarrassed, notwithstanding the great improvements which have been made since the revival of letters in Europe, prevents in some degree that swelling fullness of sound which so powerfully contributes to harmonious dignity and graceful cadences in literary compositions. And as the genius of the people of Britain has always been more disposed to the rougher arts of command than to the softer insinuations of persuasion, no pains have been taken to correct these natural defects of our language: but, on the contrary, by an inattention of which we have hardly a parallel in the history of any civilized nation, we meet with many instances, even within this last century, of the harmony of sound being sacrificed to that brevity so desirable in conversation, as many elegant words have been curtailed, and harmonious syllables suppressed, to substitute in their stead others, shorter indeed, but more barbarous and uncouth. Nay, so little attention have our forefathers bestowed upon the harmony of sounds in our language, that one would be tempted to think, on looking back to its primitive state, that they had on some occasions studiously debased it. Our language, at its first formation, seems to have laboured under a capital defect in point of sound, as such a number of S's enter into the formation of our words, and such a number of letters
and

and combinations of other letters assume a similar sound, as to give a general hiss through the whole tenor of our speech, which must be exceedingly disagreeable to every unprejudiced ear. We would therefore naturally have expected, that at the revival of letters, when our forefathers became acquainted with the harmonious languages of Greece and Rome, they would have acquired a more correct taste, and endeavoured, if possible, to diminish the prevalence of this disgusting sound. But so far have they been from thinking of this, that they have multiplied this letter exceedingly. The plurals of almost all our nouns were originally formed by adding the harmonious syllable *en* to the singular, which has given place to the letter *s*; and instead of *housen* formerly, we now say *houses*. In like manner, many of the variations of our verbs were formed by the syllable *eth*, which we have likewise changed into the same disagreeable letter; so that, instead of *loveth*, *moveth*, *writeth*, *walketh*, &c. we have changed them into the more modish form of *loves*, *moves*, *writes*, *walks*, &c. Our very auxiliary verbs have suffered the same change; and instead of *hath* and *doth*, we now make use of *has* and *does*. From these causes, notwithstanding the great improvements which have been made in language, within these few centuries, in other respects; yet, with regard to the pleasingness of sound alone, it was perhaps much more perfect in the days of Chaucer than at present: and although custom may have rendered these sounds so familiar to our ear, as not to affect us much; yet to an unprejudiced person, unacquainted with our language, we have not the smallest doubt but the language of Bacon or Sidney would appear more harmonious than that of Robertson or Hume. This is indeed the fundamental defect of our language, and loudly calls for reformation.

But notwithstanding this great and radical defect with regard to pleasingness of sounds, which must be

so strongly perceived by every one who is unacquainted with the meaning of our words; yet to those who understand the language, the exceeding copiousness which it allows in the choice of words proper for the occasion, and the nervous force which the perspicuity and graceful elegance the emphasis bestows upon it, makes this defect be totally overlooked; and we could produce such numerous works of prose, which excel in almost every different style of composition, as would be tiresome to enumerate. But although we can equal, if not surpass, every modern language in works of prose, it is in its poetical powers that our language shines forth with the greatest lustre. The brevity to which we are confined prevents us entering into a minute examination of the poetical powers of our own, compared with other languages; otherwise it would be easy to shew, that every other modern language labours under great restraints in this respect which ours is freed from; that our language admits of a greater variety of poetic movements, and diversity of cadence, than any of the admired languages of antiquity; that it distinguishes with the greatest accuracy between accent and quantity, and is possessed of every other poetic excellence which their languages were capable of: so that we are possessed of all the sources of harmony which they could boast; and, besides all these, have one super-added, which is the cause of greater variety and more forcible expression in numbers than all the rest; that is, the unlimited power given by the emphasis over quantity and cadence; by means whereof, a necessary union between sound and sense, numbers and meaning, in versification, unknown to the ancients, has been brought about, which gives our language in this respect a superiority over all those justly-admired languages. These great and distinguishing excellencies far more than counterbalance the inconveniences above-mentioned: and although, in mere pleasantness of sounds, or harmonious flow of syllables, our language

guage may be inferior to the Greek, the Latin, Italian, and Spanish; yet in point of manly dignity, graceful variety, intuitive distinctness, nervous energy of expression, unconstrained freedom and harmony of poetic numbers, it will yield the palm to none. Our immortal Milton, slowly rising, in graceful majesty stands up as equal, if not superior, in these respects, to any poet in any other tongue that ever yet existed;---while Thomson, with more humble aim, in melody more smooth and flowing, softens the soul to harmony and peace:--the plaintive moan of Hammond calls forth the tender tear and sympathetic sigh; while Gray's more soothing melancholy fixes the sober mind to silent contemplation:--more tender still than these, the amiable Shenstone comes; and from his Doric reed, still free from courtly affectation, flows a strain so pure, so simple, and of such tender harmony, as even Arcadian shepherds would be proud to own. But far before the rest, the daring Shakespeare steps forth conspicuous, clothed in native dignity; and, pressing forward with unremitting ardour, boldly lays claim to both dramatic crowns held out to him by Thalia and Melpomene: his rivals, far behind, look up, and envy him for these unfading glories; and the astonished nations around, with distant awe, behold and tremble at his daring flight. Thus the language, equally obedient to all, bends with ease under their hands, whatever form they would have it assume; and, like the yielding wax, readily receives, and faithfully transmits to posterity, those impressions which they have stamped upon it.

Such are the principal outlines of the language of Great Britain, such are its beauties, and such its most capital defects; a language more peculiarly circumstanced than any that has ever yet appeared. It is the language of a great and powerful nation, whose fleets surround the globe, and whose merchants are in every port; a people admired or revered by all the world: and yet it is less known in every foreign country than many of the other languages in Europe. In it are

written more perfect treatises on every art and science than are to be found in any other language; yet it is less sought after or esteemed by the literati in any part of the globe than almost any of these. Its superior powers for every purpose of speech are sufficiently obvious from the models of perfection in almost every particular which can be produced in it: yet it is neglected, despised, and vilified, by the people who use it; and many of those authors, who owe almost the whole of their fame to the excellence of the language in which they wrote, look upon that very language with the highest contempt. Neglected and despised, it has been trodden under foot as a thing altogether unworthy of cultivation or attention. Yet in spite of all these inconveniences, in spite of the many wounds it has thus received, it still holds up its head, and preserves evident marks of that comeliness and vigour which are its characteristical distinction. Like a healthy oak planted in a rich and fertile soil, it has sprung up with vigour: and although neglected, and suffered to be over-run with weeds; although exposed to every blast, and unprotected from every violence; it still beareth up under all these inconveniences, and shoots up with a robust healthiness and wild luxuriance of growth. Should this plant, so sound and vigorous, be now cleared from those weeds with which it has been so much encumbered; should those obstacles which now bury it under thick shades, and hide it from the view of every passenger, be cleared away; should the soil be cultivated with care, and a strong fence be placed around it, to prevent the idle or the wicked from breaking or distorting its branches; who can tell with what additional vigour it would flourish, or what amazing magnitude and perfection it might at last attain!--How would the astonished world behold, with reverential awe, the majestic gracefulness of that manly tongue which they so lately despised!



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